Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W-00/...

Edition : 23.02.98 : ISO 4113 Test oil

Combination No. : 0 403 466 13708

Injection pump

Pump designation : PES6MW100/120RS1148

EP type number : 0 413 406 143

Governor

Governer design. : RSV400...900MW7A319

: -24

Governer no. : 0 420 085 216

Cust. part No. : 3921083

Customer-spec. information Customer : CDC

Motor : 6 CTA

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 2 417 413 093

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 017 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

2.0 x inside diameter: x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : ← 1.0

Tolerance mm : 3.65
Check

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: + 0.50 Tolerance

Check

tolerance *NW : + 0.75

Start of delivery mark

*NW after s.o.d. : 9.00 Tolerance : **←** 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm :

Rack travel in mm: 13.55 Tolerance and : + 0.05

Del. quantity

cm3/1000 strokes : 179.0

Tolerance cm3/1000 strokes	: ← 1.0 [†]	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance	0
Check tolerance cm3/1000s.	: + 4.0	cm3/1000s. : +- 4.0 Spreed	0
Spreed		Tolerance cm3/1000 strokes : 4.0 Check tolerance	0
Tolerance cm3/1000 strokes	: 4.0	cm3/1000s. : 7.	5
Check tolerance cm3/1000s.	: 7.5	CONTROL LEVER	
Rated speed rpm		control lever position degree : 105.1 tolerance degree : + 4.	-
Nated Speed (pin	. 400	toter ance degree 4.0	J
Rack travel in mm Tolerance mm Del. quantity	: 5.80 : + 0.10	RATED SPEED rack travel mm : 12.50 Rated speed rpm : 795	0
cm3/1000 strokes	: 18.0		5
Tolerance cm3/1000 strokes Check tolerance	: + 2.0	rack travel mm : 4.0 Rated speed rpm : 830	o
cm3/1000S. Spreed	: + 4.5	Tolerance 1/min : +-	5
Tolerance cm3/1000 strokes	: 3.5	rack travel mm : 1.0 Tolerance mm : + 0.7	_
Check tolerance cm3/1000s.	: 5.5	Rated speed rpm : 875	
	1	rack travel mm : 4.0 Rated speed rpm : 835	0
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP	Tolerance 1/min : + 1	5
GUIDE SLEEVE POSIT	TION	LOW IDLE	
control lever	‡	control lever	
position degree Rated speed rpm	: - 3 +	position degree : 79. tolerance degree : + 4.	
Rack travel in mon Tolerance mon		Control lever difference Grad : 26.	-
governor spring pre-tension	‡	tolerance degree : + 6.	
click setting x	: 4.00	Setting point w/out bumper	apr III
		Rated speed rpm : 100	
FULL LOAD DELIVERY	AT FULL LOAD STOP	CRT mm min. : > 19.0	0
Rated speed rpm Aneroid pressure	: 750	Testing:	
hPa Del. quantity	: -	Rated speed rpm : 400 rack travel mm : 5.8	n
cm3/1000 strokes	: 179.0	Tolerance mm : + 0.1	
	•		

TORQUE CONTROL

Rated speed rpm : 750 rack travel mm : 13.55 Tolerance mm : + 0.05

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : +- 1.00

Del. quantity

cm3/1000 strokes : 135.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : \leftarrow 15.0

LOW IDLE

Rated speed rpm : 400

Rack travel in mm: 5.80 Tolerance mm: : + 0.10

Del. quantity

cm3/1000 strokes : 18.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : \leftarrow 4.5

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 24.11.97 Edition Test of l : ISO 4113

Combination No. : F 002 A0Z 039

Injection pump

Pump designation: PES6A95D320/3RS2881 EP type number : 9 410 037 215

6overnor

Governer design. : RSV500...1100A0C919R

Governer no. : F 002 A20 229

Cust. part No. : 3932479

Customer-spec. information Customer : CDC Motor : 6BT Power KW : 101.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C ÷ + 2.0 Tolerance °C

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

A04

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

: **←** 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : **←** 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Start of delivery blocking

*NW after s.o.d. : 7.00 Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 11.25 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 94.0	Aneroid pressure hPa : 900 Del. quantity
Tolerance cm3/1000 strokes : + 1.0	cm3/1000 strokes : 94.0 Tolerance
Check tolerance	cm3/1000 strokes : + 1.0 Check tolerance
cm3/1000s. : +- 3.0	cm3/1000s. : +- 3.0 Spreed Tolerance
+	cm3/1000 strokes : 3.5
Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 6.0
Check tolerance cm3/1000s. : 6.0	CONTROL LEVER
	control lever
Ratted speed rpm : 500	position degree : 92.0
Rack travel in mm: 5.10	tolerance degree : +- 4.0
Tolerance and : + 0.10	RATED SPEED
Del. quantity	rack travel mm : 10.20
cm3/1000 strokes : 18.5	Rated speed rpm : 1170 Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0	Toterance Trianti . *- 3
Check tolerance +	rack travel mm : 5.40
cm3/1000s. : + 4.5	Rated speed rpm : 1235 Tolerance 1/min : + 5
Spreed + Tolerance +	Tolerance 1/min : + 5
cm3/1000 strokes : 3.5	rack travel mm : 0.85
Check tolerance	Tolerence mm : + 0.55
cm3/1000s. : 5.5	Rated speed rpm : 1350
+	rack travel mm : 5.40
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1235 Tolerance 1/min : + 15
WITH GOVERNOR	Toterance Dain : + 15
GUIDE SLEEVE POSITION	LOW IDLE
control lever	
position degree : -3 + Rated speed rpm : 800 +	control lever position degree : 75.0
Rated speed rpm . Soo	tolerance degree : + 4.0
Rack travel in man: 0.50	
Tolerance and $:\leftarrow 0.20$	Control lever difference Grad : 17.0
governor spring	tolerance degree : + 6.0
pre-tension +	Catalan maint of an harmonia
click setting x : 1.75	Setting point w/out bumper spring
	Rated speed rpm : 500
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 4.60 Tolerance mm : + 0.10
Rated speed rpm : 1100	10.00 to 10.00
+	Rated speed rpm : 100

CRT am ain.	: > 19.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.15 : ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 800 : 900
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: -
MEASUREMENT	
Rated speed rpm	: 800
Pressure hPa rack travel mma Tolerance mma	: 650 : 11.65 : ← 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm	: 900 : 800
Del. quantity cm3/1000 strokes Tolerance	: 107.5
cm3/1000 strokes Check tolerance cm3/1000s.	: + 2.0 : + 4.0

A06

	: 800
Del. quantity	67.6
cm3/1000 strokes Tolerance	: 97.5
cm3/1000 strokes	: ← 1.0
Check tolerance	
cm3/1000s.	: ← 3.0
STARTING FUEL DEL	.IVERY
Rated speed rpm	: 100
rack travel mm	: 20.50
Tolerance mm	: ← 0.50
Del. quantity cm3/1000 strokes	: 120.5
Tolerance	. 120.3
cm3/1000 strokes	: ← 10.0
Check tolerance	45.0
cm3/1000s.	: +- 15.0
TOM IDLE	
Rated speed rpm	: 500
Rack travel in mm	5.10
Tolerance mm	: ← 0.10
Del. quantity	0.2
cm3/1000 strokes	: 18.5
Tolerance	

End of test specification sheet

cm3/1000 strokes : +-

cm3/1000 strokes :

Check tolerance cm3/1000s.

Check tolerance cm3/1000s.

Spreed Tolerance 2.0

4.5

3.5

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 09.03.98 : ISO 4113

Combination No. : F 002 A02 042

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

6overnor

Governer design. : RSV500...1100A0C924R

Governer no. : F 002 A20 232

Cust. part No. : 3932477

Customer-spec. information Customer : CDC

Motor

: 6BT

Power KW

: 82.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

40

Tolerance *C

: + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

208.5

Tolerance bar : ← 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

A07

x inside diameter: 2.0 600 x length same:

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

17.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 2.85 : + 0.05 Tolerance mm

Check

tolerance man : + 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Start of delivery blocking

*NW after s.o.d. : 7.00 : +- 0.50 Tolerance

Check

: **←** 0.75 tolerance *NW

: 1 Barret no.

BASIC SETTING

Rated speed rpm : 1100

Rack travel in am: 9.85

Tolerance m_1 : $\leftarrow 0.05$

Del. quantity

cm3/1000 strokes : 78.5

	+ Del. quantity
Tolerance	+ cm3/1000 strokes : 78.5
cm3/1000 strokes : +- 1.0	† Tolerance
	+ cm3/1000 strokes : + 1.0
Check tolerance	+ Check tolerance
$cm3/1000s.$: \leftarrow 3.0	+ cm3/1000s. : $+$ 3.0
0	Spreed
Spreed	+ Tolerance + cm3/1000 strokes : 3.5
Tolerance	+ Check tolerance
cm3/1000 strokes : 3.5	- cm3/1000s. : 6.0
CHE/ 1000 SELOKES : 5.5	I (#25/10003 0.0
Check tolerance	1
cm3/1000s. : 6.0	
	+ CONTROL LEVER
	+
	+ control lever
Rated speed rpm : 500	position degree : 95.0
	tolerance degree : + 4.0
Rack travel in man: 5.10	†
Tolerance ma : + 0.10	+ RATED SPEED
Del. quantity	rack travel mm : 8.80
cm3/1000 strokes : 18.5	Rated speed rpm : 1165
Tolerance	+ Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0 Check tolerance	+ Check + speed 1/min : +- 10
cm3/1000s. : +- 4.5	T Speed (ABIT) . TO 10
Spreed 4.3	rack travel mm : 5.40
Tolerance	Rated speed rpm : 1225
cm3/1000 strokes : 3.5	+ Tolerance 1/min : + 5
Check tolerance	+ Check
cm3/1000s. : 5.5	speed 1/min : + 10
* ***	+
	rack travel mm : 0.85
(B) SETTING OF INJECTION PUMP	+ Tolerance mm : + 0.55
WITH GOVERNOR	+ Rated speed rpm : 1400
	+
	+ rack travel mm : 5.40
	Rated speed rpm : 1225
GUIDE SLEEVE POSITION	+ Tolerance 1/min : + 15
	+ Check
	+ speed 1/min : +- 20
control lever	†
position degree : - 3	†
Rated speed rpm : 800	
Rack travel in mm : 0.50	LOW IDLE
Tolerance mm : + 0.20	I LOW TOPE
FULE CORPUE HIR . TO U.CU	I
governor spring	T control lever
pre-tension	position degree : 80.0
click setting x : 2.25	+ tolerance degree : + 4.0
actor opening by a great	+
	Control lever difference
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Grad : 15.0
	+ tolerance degree : + 6.0
Rated speed rpm : 1100	+
Aneroid pressure	+ Setting point w/out bumper spring
nra : -	+
	Rated speed rpm : 500

rack travel mm	: 4.60
Tolerance am	: ← 0.10
Rated speed rpm	: 100
CRT am min.	: > 19.00
Testing:	
Rated speed rpm	: 500
rack travel mma Tolerance mma	: 5.10 : + 0.10
TORQUE CONTROL	
Rated speed rpm	
rack travel mm	: 9.85
Tolerance ma	: + 0.05
Rated speed rpm	
rack travel mm	: 10.90
THE STEEL STATE	
Tolerance mm	: + 0.10
FUEL DELIVERY CHA	
FUEL DELIVERY CHA	RACTERISTICS
FUEL DELIVERY CHA	
FUEL DELIVERY CHA	RACTERISTICS
FUEL DELIVERY CHARANTE Aneroid pressure hPa Rated speed rpm Del. quantity	RACTERISTICS : - : 800
FUEL DELIVERY CHARANTE Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	RACTERISTICS : - : 800 : 90.5
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	RACTERISTICS : - : 800 : 90.5 : + 2.0
FUEL DELIVERY CHARANTE Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	RACTERISTICS : - : 800 : 90.5
FUEL DELIVERY CHARANTE Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: : 800 : 90.5 : + 2.0 : + 4.0
FUEL DELIVERY CHARANTONIA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm	RACTERISTICS :
FUEL DELIVERY CHARAMeroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL. Rated speed rpm rack travel mmm	RACTERISTICS :
FUEL DELIVERY CHARAMETER DELIVERY CHARAMETER DELIVERY CHARAMETER DEL QUANTITY CM3/1000 strokes Tolerance CM3/1000s. STARTING FUEL DELIVERY CHARAMETER DELIVER CM3/1000s.	RACTERISTICS :
FUEL DELIVERY CHARAMETER PROBLEM PROBL	RACTERISTICS :
FUEL DELIVERY CHAINA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mmm Tolerance tmm Del. quantity cm3/1000 strokes	RACTERISTICS :
FUEL DELIVERY CHARAMETER PROBLEM PROBL	RACTERISTICS : 800 : 90.5 : + 2.0 : + 4.0 IVERY : 100 : 20.50 : + 0.50 : 120.5
FUEL DELIVERY CHAIR Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance tma Del. quantity cm3/1000 strokes Tolerance	RACTERISTICS : 800 : 90.5 : + 2.0 : + 4.0 IVERY : 100 : 20.50 : + 0.50 : 120.5

Rack travel in mm : Tolerance mm : +-	5.10 0.10
Del. quantity cm3/1000 strokes : Tolerance	18.5
cm3/1000 strokes : +- Check tolerance	2.0
cm3/1000s. : +-	4.5
Tolerance cm3/1000 strokes :	3.5
Check tolerance cm3/1000s. :	5.5

End of test specification sheet

Rated speed rpm : 500

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 02.02.98 Edition Test oil : ISO 4113

Combination No. : F 002 A0Z 043

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV500...1100A0c925R

Governer no. : F 002 A20 233

Cust. part No. : 3932478

Customer-spec. information Customer : CDC Motor : 68T : 90.0 Power KM

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance *C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : Tolerance bar : + 0.1,

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : ← 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

tolerance am : + 0.10

Rack travel in mm : 10.50 Tolerance mm : ← 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Start of delivery blocking

*NW after s.o.d. : 7.00 : **←** 0.50 Tolerance

Check

tolerance *NW : ← 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 10.85 Tolerance mm : + 0.05

A10

	Aneroid pressure
Del. quantity	hPa : 900
cm3/1000 strokes : 86.0	Del. quantity
1	cm3/1000 strokes : 86.0
Tolerance	Tolerance
cm3/1000 strokes : +- 1.0	cm3/1000 strokes : +- 1.0
The state of the s	Check tolerance
Check tolerance	
cm3/1000s. : + 3.0	Spreed
	Tolerance
Spreed	cm3/1000 strokes : 3.5
†	Check tolerance
Tolerance	cm3/1000s. : 6.0
cm3/1000 strokes : 3.5	
Check tolerance	
cm3/1000s. : 6.0	CONTROL LEVER
	control lever
\mathbf{I}	position degree : 94.0
Rated speed rpa : 500	tolerance degree : + 4.0
rated speed rpm . 300	toteralite degree . += 4.0
Project report in the S. 10	DATEN CREEN
Rack travel in mm: 5.40	RATED SPEED
Tolerance mm : + 0.10 +	rack travel am : 9.80
Del. quantity	Rated speed rpm : 1165
cm3/1000 strokes : 18.5	Tolerance 1/min : +- 5
Tolerance +	Check
cm3/1000 strokes : + 2.0 +	speed 1/min : +- 10
Check tolerance	
cm3/1000s. : + 4.5	rack travel mm : 6.00
Spreed	Rated speed rpm : 1220
Tolerance	Tolerance 1/min : + 5
cm3/1000 strokes : 3.5	Check
Check tolerance	speed 1/min : + 10
	Speed Philli . The To
cm3/1000s. : 5.5	ned the color
†	rack travel mm : 0.85
	Tolerance mm : +- 0.55
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1350
WITH GOVERNOR +	
+	rack travel man : 6.00
+	Rated speed rpm : 1230
	Tolerance 1/min : + 15
GUIDE SLEEVE POSITION +	Check
	speed 1/min : +- 20
1	
control lever	
100 to 10	
Rated speed rpm : 800	LOU TRUE
1	LOW IDLE
Rack travel in mm: 0.50	
Tolerance mm : + 0.20 +	
+	control lever
governor spring	position degree : 30.0
pre-tension +	tolerance degree : +- 4.0
Tutility setting x	
1	Control lever difference
	Grad : 14.0
FULL LOAD DELIVERY AT FULL LOAD STOP	tolerance degree : +- 6.0
The four present the total four four	
Rated speed rpm : 1100	Setting point w/out bumper spring
Rated speed rpm : 1100 +	secring hour myour powher, shring

Rated speed rpm	:	500
rack travel mm	:	4.90
Tolerance mm	: +-	0.10

Rated speed rpm : 100

CRT am ain. : > 19.00

Testing:

Rated speed rpm : 500 rack travel mm : 5.40 Tolerance mm : ← 0.10

TORQUE CONTROL

Rated speed rom : 1100
rack travel mm : 10.85
Tolerance mm : +- 0.05

Rated speed rpm : 800 rack travel mm : 11.55 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 800 Pressure hPa : -

MEASUREMENT

Pressure hPa : 800 rack travel mm : 11.05 Tolerance mma : ← 0.30

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 900 Rated speed rpm : 800 Del. quantity

cm3/1000 strokes : 96.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/7000S. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.50
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 120.5
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 500

Rack travel in mm: 5.40
Tolerance mm: + 0.10
Del. quantity
cm3/1000 strokes: 18.5
Tolerance
cm3/1000 strokes: + 2.0
Check tolerance
cm3/1000s. : + 4.5
Spreed

Tolerance

cm3/1000 strokes : 3.5 Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) \\400/...

Edition Test oil

: 23,02,98 : 350 4113

Combination No. : F 002 A0Z 057

Injection pump

Pump designation : PES4A95D320/3RS2927

EP type number : F 002 A10 017

Governor

Governer design. : RSV475...1250A0C936R

Governer no.

: F 002 A20 241

Cust. part No. : 3930145

Customer-spec, information

Customer : CDC Motor

: 4BNA3.9 : 59.7

Power KW

TEST BENCH REQUIREMENTS

Inlet line

: 3.2

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar :

2.0

Tolerance bar : +- 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

208.5

Tolerance bar

: **←** 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 17.0

Tolerance bar : \leftarrow 1.0

Prestroke mm 2.85

: **←** 0.05 Tolerance mm

Check

: + 0.10 tolerance ma

Rack travel in mm: 10.50

: +- 1.50 Tolerance mm

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : Tolerance

8.50 : **←** 0.50

Check

tolerance *NW

Barrel no.

: **←** 0.75

: 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 10.20

Tolerance mm : + 0.05

A13

+	Aneroid pressure
Del. quantity	hPa : -
cm3/1000 strokes : 92.0	Del. quantity
+	cm3/1000 strokes : 92.0
Tolerance	Tolerance
$cm3/1000$ strokes : \leftarrow 1.0 $+$	cm3/1000 strokes : + 1.0
	Check tolerance
Check tolerance	cm3/1000s. : +- 3.0
cm3/1000s. : $+$ 3.0	Spreed
	Tolerance
Spreed	cm3/1000 strokes : 3.5
Tolerance	Check tolerance cm3/1000s. : 6.0
cm3/1000 strokes : 3.5	CM3/10003. : 0.0
I	
Check tolerance	
cm3/1000s. : 6.0	CONTROL LEVER
	control lever
}	position degree : 91.0
Rated speed rpm : 475	tolerance degree : +- 4.0
+	
Rack travel in mm: 5.00	RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 9.20
Del. quantity	Rated speed rpm : 1340 _
cm3/1000 strokes : 13.5	Tolerance 1/min : + 5
Tolerance	
cm3/1000 strokes : + 2.0	rack travel mms : 4.00
Check tolerance + 4.5 + 4.5	Rated speed rpm : 1400 Tolerance 1/min : +- 5
	Toterance Minn : ** 3
Spreed	rack travel mm : 0.85
Tolerance + cm3/1000 strokes : 3.5	Tolerance mm : 0.65
Check tolerance	Rated speed rpm : 1475
cm3/1000s. : 5.5	Rated speed (pill : 147)
1	rack travel mm : 4.00
1	Rated speed rpm : 1400
(B) SETTING OF INJECTION PUMP	Tolerance 1/min : + 15
WITH GOVERNOR	
+	
+	
GUIDE SLEEVE POSITION	LOW IDLE
†	
control lever	control lever
position degree : - 3	position degree : 70.0
Rated speed rpm : 800	tolerance degree : +- 4.0
nated speed (pink : 000	toterance degree 4.0
Rack travel in mm: 0.50	Control lever difference
Tolerance mm : + 0.20	Grad : 21.0
4	tolerance degree : + 6.0
governor spring	
pre-tension +	Setting point w/out bumper spring
click setting x : 3.50	
+	Rated speed rpm : 475
	rack travel mm : 4.50
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
†	Sakad anad sas
Reted speed rpm : 1250 +	Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

Rated speed rpm : 475
rack travel mm : 5.00
Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 10.20 Tolerance mm : + 0.05

Rated speed rpm : 600

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 120.0

Tolerance ca3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : \leftarrow 15.0

LOW IDLE

Rated speed rom : 475

Rack travel in mm : 5.00

Tolerance mm : + 0.10

Del. quantity
cm3/1000 strokes : 13.5

E,

Tolerance cm3/1000 strokes : + 2.0

cm3/1000 strokes : \(\psi \) 2.0 Check tolerance cm3/1000s. : \(\psi \) 4.5 Spreed

Tolerance cm3/1000 strakes : 3.5 Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 04.03.98 : ISO 4113

Combination No. : F 002 AUZ 061

Injection pump

Pump designation : PES4A95D320/3RS2927

EP type number : F 002 A10 017

Governor

Governer design. : RSV475...1100A20941R

Soverner no. : F 002 A20 242

Cust. part No. : 3930143

Customer-spec. information Customer : CDC : 4BNA3.9 Motor

Power KW

: 54.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 600 x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85 : +- 0.05 Tolerance man

Check

: +- 0.10 tolerance mm

Rack travel in mm : 10.50 Tolerance is : + 1.50

Firing order : 1-3-4-2

: 0-90-180-270 Phasing Tolerance

: **←** 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 9.50 Tolerance : +- G.50

Check

tolerance *NW : **←** 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 10.55 Tolerance mm : \leftarrow 0.05

A16

Rated speed rpm	: 515
Rack travel in mm	
Tolerance mm Del. cumntity	: +- 0.20
cm3/1000 strokes	: 13.5
Tolerance	
cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s.	: + 4.5
Spreed	
Tolerance cm3/1000 strokes	. 7.5
Check tolerance	: 3.5
cm3/1000s.	: 5.5
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE POSI	TION
control lever	
position degree	: - 3
Rated speed rpm	: 800
Rack travel in man	: 0.50
Tolerance mm	: +- 0.20
dovernos carina	
governor spring pre-tension	
	: 3.00
CONTROL LEVER	
control lever	
position degree	: 100.0
tolerance degree	: ← 4.0
RATED SPEED	
rack travel mm	: 9.50
Rated speed rpm	: 1160
Tolerance 1/min	: +- 5
rack travel mm	: 4.00
Rated speed rpm	: 1225
Tolerance 1/min	: + 5
rack travel ma	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm	: 1325

rack travel man Rated speed rom Tolerance 1/min	: 4.00 : 1235 : + 15
LON IDLE	
control lever position degree tolerance degree	: 81.0 : +- 4.0
Control lever dif	ference : 19.0
tolerance degree	: + 6.0
Setting point w/o	ut humper spring
Rated speed rpm rack travel mm Tolerance mm	: 515 : 4.90 : ← 0.20
Rated speed rpm	: 100
CRT mm min.	: > 19.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 515 : 5.40 : ← 0.20
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	
Rated speed rp:n rack travel mma Tolerance mma	: 600 : 10.55 : ← 0.20
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm	: - : 600
Del. quantity cm3/1000 strokes	
Tolerance cm3/1000 strokes	: +- 1.0
Check tolerance cm3/1000s. Spreed	: ← 3.0
opi ecu	

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. 6.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 : + 0.50 Tolerance and

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : **←** 15.0

LOW IDLE

Rated speed rpm : 515

Rack travel in mm: 5.40 : + 0.20 Tolerance am

Del. quantity

cm3/1000 strokes : 13.5

Tolerance

cm3/1000 strokes : + 2.0 Check tolerance

cm3/1000s. : +- 4.5

Spreed

Tolerance

3.5 cm3/1000 strokes :

Check tolerance

: 5.5 cm3/1000s.

Note resarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 05.03.98 : ISO 4113

Combination No. : 0 401 846 370

Injection pump

Pump designation : PE6P110A320RS157 EP type number : 0 411 816 108

Governor

Governer design. : RQV250...550/1150PA1

: 40R

Governer no. : 0 421 813 184

Cust. part No. : 516208005011

Customer spec. information Customer : STEYR : 7 FA Motor Power KW : 235.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

: 40 temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Overflow quantity

min. L/h : 120 Toterance L/h : + 20.0

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.05 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Start of delivery mark

Tolerance : ← 0.50

Check

tolerance *NW : **←** 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 12.25

Tolerance mm : +- 0.05

	+ Tolerance
Del. quantity cm3/1000 strokes : 170.0	cm3/1000 strokes : + 1.0 Check tolerance
Tolerance	+ cm3/1000s. : \leftarrow 4.0
cm3/1000 strokes : 1.0	+ Spreed + Tolerance
Charle Aslange	+ cm3/1000 strokes : 4.0
Check tolerance cm3/1000s. : +- 4.0	Check tolerance cm3/1000s. : 8.0
Spreed	
Tolerance cm3/1000 strokes : 4.0	CONTROL LEVER
Check tolerance	+ control lever + position degree : 122.0
cm3/1000s. : 8.0	tolerance degree : + 4.0
	RATED SPEED
Rated speed rpm : 250	+ rack travel nm : 11.20 + Rated speed rpm : 1195
	Tolerance 1/min : + 5
Rack travel in mm : 6.30 Tolerance mm : + 0.10	+ rack travel mm : 4.00
Del. quantity	Rated speed rpm : 1275
cm3/1000 strokes : 16.0	Tolerance 1/min : +- 15
Tolerance ca3/1000 strokes : +- 3.0	rack travel mm : 0.50
Check tolerance	+ Tolerance mm : + 0.50
cm3/1000s. : + 5.5	Rated speed rpm : 1450
Spreed Tolerance	1
cm3/1000 strokes : 4.0	-
Check tolerance	
cm3/1000s. : 7.0	LOW IDLE
(B) SETTING OF INJECTION PUMP	t control lever
WITH GOVERNOR	position degree : 66.0
	tolerance degree : + 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
00101 000111 1 00111011	Rated speed rpm : 100
control lever position degree : - 1	CRT man min. :> 7.50
Rated speed rpm : 1150	Testing:
Rack travel in mma: 16.50	Rated speed rpm : 250
Tolerance mm : + 1.30	rack travel mm : 6.30
	Tolerance man : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00
Didd and an A450	Rated speed rpm : 440
Rated speed rpm : 1150 Aneroid pressure	+ Tolerance 1/min : ← 30
hPa : 900	+
Del. quantity	TORQUE CONTROL
cm3/1000 strokes : 170.0	+ Rated speed rpm : 1150

A20

rack travel am	:	12.25
Tolerance am	: +-	0.05

AMEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	900
rack travel mm	:	12.25
Tolerance ma	: 1	- 0.05

Rated speed rpm	•		500
Pressure hPa	:		_
rack travel mm	:		10.60
Tolerance mm	:	+	0.15

MEASUREMENT

Rated	speed	rpm	:	500
-------	-------	-----	---	-----

Pressure hPa	:		300
rack travel mm	•		11.00
Tolerance mm	:	+	0.10

Pressure hPa	:		380
rack travel mm	:		11.75
Tolerance ma		+-	0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure			
hPa	:		-
Rated speed rpm	:	•	1150
Del. quantity			
cm3/1000 strokes	:		133.0
Tolerance			
cm3/1000 strokes	:	+	1.0
Check tolerance			
cm3/1000s.	:	+	4.0
Spreed			

Spreed Check tolerance		
cm3/1000s.	:	9.0

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		16.00
Tolerance mm	:	+-	0.50
Del. quantity			
cm3/1000 strokes	•		215 N

Tolerance cm3/1000 strokes	: +-	15.0
Check tolerance cm3/1000s.	: +-	19.0

LOW IDLE

Rated speed rpm	:		250
Rack travel in mm	-	.	6.30
Tolerance mm Del. quantity	•	+	0.10
cm3/1000 strokes	:		16.0
Tolerance cm3/1000 strokes	:	+-	3.0
Check tolerance	•	+	5.5
Spreed	•		3.3
Tolerance cm3/1000 strokes	:		4.0
Check tolerance			7.0
cm3/1000s.	:		7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.03.98 Test oil : ISO 4113

Combination No. : 0 401 846 974

Injection pump

Pump designation : PE6P110A720LS3283 EP type number : 0 411 816 786

Sovernor

Governer design. : RQ250/1000PA1067 60verner no. : 0 421 801 684

Cust. part No. :

Customer-spec. information

Customer : IVECO-PEGASO Motor : 95 TEGZ Power KW : 165.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 har Tolerance bar : ← 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length man : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : - 1.0

Prestroke mm Tolerance mm : + 0.05

Check

: **←** 0.10 tolerance man

Rack travel in mm: 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: ← 0.30 Tolerance

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 250

Rack travel in mm: 4.60 Tolerance mm : \leftarrow 0.10 Del. quantity

cm3/1000 strokes : 20.0 Tolerance

cm3/1000 strokes : \leftarrow 2.5

Check tolerance cm3/1000s. : +- 5.0

Spreed Tolerance

cm3/1000 strokes : 4.5

Check tolerance

cm3/1000s. : 7.5

(B) SETTING OF INJECTION PUMP WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever

position degree : - 1 Rated speed rpm : 550

Rack travel in mm : 16.00 Tolerance mm : + 0.60

RATED SPEED

rack travel mm : 9.80
Rated speed rpm : 1048
Tolerance 1/min : + 8

rack travel mm : 4.00
Rated speed rpm : 1115
Tolerance 1/min : + 15

rack travel mm : 0.50
Tolerance mm : + 0.50
Rated speed rpm : 1250

LOW IDLE

control lever

position degree : 73.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 100

CRT mm min. :> 6.10

Testing:

Rated speed rpm : 250 rack travel mm : 4.60 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 340
Tolerance 1/min : +- 20

TORQUE CONTROL

Rated speed rpm : 600 rack travel mm : 11.35 Tolerance mm : + 0.05

Rated speed rpm : 980 rack travel mm : 11.30 Tolerance mm : + 0.10

ANERGID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 900
rack travel mm : 10.85
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : rack travel man : 8.10
Tolerance man : +- 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPe : 310 rack travel mm : 8.90 Tolerance mm : + 0.10

Pressure hPa : 520 rack travel mm : 10.15 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure
hPa : 900
Rated speed rpm : 980
Del. quantity
cm3/1000 strokes : 178.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 5.0

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 118.0
Tolerance
cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : ← 3.5

STARTING FUEL DELIVERY

Del. quantity

cm3/1000 strokes : 155.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : \leftarrow 14.0

LOW IDLE

Rated speed rpm : 250

Rack travel in mma : 4.60 Tolerance mma : + 0.10

Del. quantity

cm3/1000 strokes : 20.0

Tolerance

cm3/1000 strokes : - 2.5

Check tolerance

cm3/1000s. : +- 5.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance

cm3/1000s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 05.03.98 : ISO 4113

Combination No. : 0 401 876 796

Injection pump

Pump designation : PE6P120A320LS3815

: -13

EP type number : 0 411 826 782

Governer design. : RSV675...1050P0A820

: -12

Governer no.

: 0 421 833 401

Cust. part No. : 0240745302

Customer-spec. information

Customer : MB-NF7.

: 0M441A

Motor Power KW

: 162.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : + 10.0

Test nozzle holde

assembly

: 1 688 901 019

Opening pressure

bar

: 208.5

A25

Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter:

3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0

Tolerance bar : + 1.0

Prestroke mm : +-

: ← 0.05

Check

tolerance mm

: ← 0.10

Rack travel in mm: 10.50

Tolerance mm : ← 1.50

Firing order

: 6-3-5-2-4-

Phasing

: 0-60-120-180-240

: -300

Tolerance

: + 0.50

Check

tolerance *NW

: **←** 0.75

Start of delivery mark

Tolerance Check

: +- 0.10

tolerance *NW

: +- 0.75

Barrel no.

: 6

BASIC SETTING

Rated speed rpm : 1080

1	
Rack travel in was: 10.00 Tolerance was: + 0.05	FULL LOAD DELIVERY AT FULL LOAD STO
Del. quantity cm3/1000 strokes : 146.0	Rated speed rpm : 1080 Aneroid pressure hPa : -
Tolerance cm3/1000 strokes : + 1.0	Del. quantity cm3/1000 strokes : 146.0 Tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0
Spreed	Spreed Tolerance
Tolerance cm3/1000 strokes : 5.0	cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 9.0	
$\overline{\mathbf{I}}$	CONTROL LEVER
Rated speed rpm : 675	control lever position degree : 93.0
Rack travel in mm : 3.40 Tolerance mm : + 0.10	tolerance degree : + 4.0
Del. quantity cm3/1000 strokes : 17.0 Tolerance	
cm3/1000 strokes : + 3.0 Check tolerance	LOW IDLE
cm3/1000s. : + 6.0 + 5preed	
Tolerance + cm3/1000 strokes : 8.0 + Check tolerance +	control lever position degree : 77.0 tolerance degree : + 4.0
cm3/1000s. : 12.0	Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 100
WITH GOVERNOR	CRT 30 min. :> 19.50
GUIDE SLEEVE POSITION	ng:
	Raced speed rpm : 675 rack travel mm : 3.40 Tolerance mm : ← 0.10
control lever position degree : -3	
Rated speed rpm : 800	rack travel mm : 2.00 Rated speed rpm : 705_
Rack travel in mm : 0.50 Tolerance mm : + 0.20	Tolerance 1/min : + 30
governor spring	SET IDLE AUXILIARY SPRING
pre-tension click setting x : 3.00	rack travel mm : 2.00

TORQUE CONTROL

STOP

Rated speed rom	: 1080
rack travel am	: 10.00
Tolerance no	: ← 0.05
Rated speed rpm	: 700
rack travel mm	: 11.30
Tolerance mm	: ← 0.10
Rated speed rpm	: 925
rack travel mm	: 10.60
Tolerance no	: ← 0.10
Rated speed rpm	: 500
rack travel me	: 11.30
Tolerance mm	: ← 0.15

FUEL	DEL	IVERY	CHARACTERISTI	CS
------	-----	--------------	---------------	----

Aneroid pressure		
hPa		_
Rated speed rpm	•	700
Del. quantity		
cm3/1000 strokes	:	177.0
Tolerance		
cm3/1000 strokes	: +	- 2.0
Check tolerance		
cm3/100 0S.	: +	- 5.0
Spreed		
Tolerance		
cm3/1000 strokes	:	8.0
Check tolerance		
cm3/1000s.	:	12.0

rack trave	et mana	:		70.60
Tolerance	PROP	:	+	0.10

STARTING FUEL DELIVERY

Rated speed rom	:	100
Del. quantity cm3/1000 strokes	:	200.0
Tolerance cm3/1000 strokes	: +	- 10.0
Check tolerance cm3/1000s.	: +	- 14.0

LOW IDLE

Rated speed rpm : 675

Rack travel in ma	:		3.40
Tolerance mm	•	+-	0.10
Del. quantity			
cm3/1000 strokes	:		17.0
Tolerance			
cm3/1000 strokes	:	+-	3.0
Check tolerance			
cm3/1000s.	:	+	6.0
Spreed			
Tolerance			
cm3/1000 strokes	:		8.0
Check tolerance			
cm3/1000S.	:		12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.03.98 Test oil : ISO 4113

Combination No. : 0 402 036 755

Injection pump

Pump designation : PES6P120A720/3LS3255

: -2

EP type number : 0 412 026 768

6cvernor

Governer design. : RQ300/1000PA813-23

Governer no. : 0 421 801 710

Cust. part No. : 51.11103-7336

Customer-spec. information

Customer : MAN

Motor : 02866LU08 Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. *C : 40
Tolerance *C : 7 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.75 Tolerance mm : + 0.05

Check

tolerance am : + 0.10

Rack travel in mm : 15.00 Tolerance mm : + 0.50

Firing order : 6-2-4-1-5-

: 3

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.30

Check

tolerance *NW : ← 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 13.90 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 205.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.	: +- 4.0	Rated speed rpm : 1220 guide sleeve
Spreed		travel mm : 11.50 Tolerance mm : + 0.50
Tolerance cm3/1000 strokes	: 5.0	<u> </u>
Check tolerance cm3/1000s.	: 9.0	GUIDE SLEEVE POSITION control lever
Data danced and	. 700	position degree : 109 Rated speed rpm : 550
Rated speed rpm Rack travel in mm		Rack travel in mm : 15.50 Tolerance mm : + 0.80
Tolerance mm Del. quantity		Toterance into : + 0.00
cm3/1000 strokes Tolerance	: 20.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Check tolerance	: ← 3.0	Rated speed rpm : 700 Aneroid pressure
cm3/1000s. Spreed	: ← 6.0	hPa : 1200 Del. quantity
Tolerance cm3/1000 strokes	: 8.0	+ cm3/1000 strokes : 205.0 Tolerance
Check tolerance cm3/1000s.	: 12.0	cm3/1000 strokes : +- 1.0 Check tolerance
(D) OFTING OF T	AUCOTTON DIMO	+ cm3/1000s. : + 4.0 + Spreed
(B) SETTING OF IN	MECITON PUMP	† Tolerance † cm3/1000 strokes : 5.0 † Check tolerance
GUIDE SLEEVE TRAY	VEL	cm3/1000s. : 9.0
Rated speed rpm guide sleeve	: 1050	CONTROL LEVER
travel mm Tolerance mm	: 7.31 : + 0.10	control lever
Rated speed rpm	: 300	<pre>position degree : 285.0 tolerance degree : +- 4.0</pre>
guide sleeve travel mm	: 2.15	+ RATED SPEED
Tolerance mm	: + 0.10	rack travel mm : 12.90 Rated speed rpm : 1053
Rated speed rpm guide sleeve	: 1000	Tolerance 1/min : + 8
travel mm	: 7.00 : +- 0.10	rack travel mma : 4.00 Rated speed rpm : 1150
Tolerance mm		Rated speed rpm : 1150 Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 383	+ rack travel mm : 0.50
travel mm	: 5.04	+ Tolerance mma : +- 0.50
Tolerance mm	: +- 0.10	+ Rated speed rpm : 1260
Rated speed rpm guide sleeve	: 480	‡
travel mm	: 7.00	10/10/5
Tolerance mm	: 0.10	+ LOW IDLE

B**0**1

control lever position degree : 255.0 tolerance degree : +- 4.0 Setting point w/out bumper spring Rated speed rpm : 200 CRT mm min. : > 9.80 Testing: Rated speed rom 300 6.30 rack travel mm Tolerance ma : +- 0.10 rack travel mm : 2.00 Rated speed rpm : 380 Tolerance 1/min : ← 20 TORQUE CONTROL 700 Rated speed rpm : 13.90 rack travel mm : Tolerance mm : **←** 0.05 1000 Rated speed rpm rack travel mm : 13.90 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING 500 Rated speed rpm : 1200 Pressure hPa 13.90 rack travel mm : : **←** 0.05 Tolerance ma 500 Rated speed rpm Pressure hPa 11.35 rack travel mm : : **←** 0.15 Tolerance mm **MEASUREMENT** Rated speed rpm : 500

450

110

11.65

: + 0.15

: **←** 0.05

13.30

Rated speed rpm :> 100 Rated speed rpm : < 220 Check speed 1/min : > 80 Check speed 1/min : < 280 FUEL DELIVERY CHARACTERISTICS Aneroid pressure 1200 Rated speed row : 1000 Del. quantity cm3/1000 strokes : 212.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Aneroid pressure hPa Rated speed run : 500 Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : \leftarrow 1.0 Check tolerance cm3/1000s. : **←** 4.0 STARTING FUEL DELIVERY Del. quantity cm3/1000 strokes : 230.0 Tolerance cm3/1000 strokes : + 10.0Check tolerance cm3/1000s. : +- 14.0 LOW IDLE Rated speed rpm : 300 Rack travel in mm: 6.30 Tolerance max : + 0.10Del. quantity cm3/1000 strokes : 20.0

Start interlock

B02

Pressure hPa

rack travel mm

Tolerance mm

Pressure hPa

Tolerance mm

rack travel mm :

Tolerance
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 6.0
Spreed
Tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.03.98 Edition Test oil : ISO 4113

Combination No. : 0 402 036 758

Injection pump

Pump designation: PES6P120A720/3LS3255

EP type number : 0 412 026 775

Sovernor

Governer design. : RQ300/1000PA813-23

Governer no. : 0 421 801 710

Cust. part No. : 51.11103-7387

Customer-spec. information Customer

: MAN : D2866LU08 Motor

: 230.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

40 temp. °C Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : \leftarrow 0.1

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x length am : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05

Check

tolerance mm : **←** 0.10

Rack travel in mm: 15.00 : +- 0.50 Tolerance mm

Firing order : 6-2-4-1-5-

: 3

Phasing : 0-60-120-180-240

: -300

: **←** 0.30 Tolerance

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 13.90 Tolerance mm : + 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 205.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0	Rated speed rpm : 1220 - guide sleeve
Spreed	travel mm : 11.50 Tolerance mm : +- 0.50
Tolerance cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. 9.0	control lever
Rated speed rpm : 300	position degree : 109 Rated speed rpm : 550
Rack travel in mm: 6.30	Rack travel in mm : 15.50 Tolerance mm : + 0.80
Tolerance mm : + 0.10 Del. quantity	
cm3/1000 strokes : 20.0 Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : +- 3.0 Check tolerance	Rated speed rpm : 700 Aneroid pressure
cm3/1000s. : ← 6.0 Spreed	hPa : 1200 Del. quantity
Tolerance cm3/1000 strokes : 8.0	+ cm3/1000 strokes : 205.0 + Tolerance
Check tolerance cm3/1000s. : 12.0	t cm3/1000 strokes : + 1.0 check tolerance cm3/1000s. : + 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	‡
Rated speed rpm : 1050 guide sleeve travel mm : 7.31	CONTROL LEVER
Tolerance mm : +- 0.10	control lever position degree : 285.0
Rated speed rpm : 300 guide sleeve	tolerance degree : + 4.0
travel mm : 2.15 Tolerance mm : + 0.10	RATED SPEED : 12.90
Rated speed rpm : 1000 guide sleeve	Reted speed rpm : 1053 Tolerance 1/min : + 8
travel mm : 7.00 Tolerance mm : + 0.10	rack travel mm : 4.00 Rated speed rpm : 1150 Tolerance 1/min : + 15
Rated speed rpm : 383 guide sleeve	rack travel mm : 0.50
travel mm : 5.04 Tolerance mm : + 0.10	Tolerance mm : + 0.50 Rated speed rpm : 1260
Rated speed rpm : 480 guide sleeve	<u> </u>
travel man : 7.00 Tolerance man : + 0.10	LOW IDLE

B05

		1
control lever position degree tolerance degree	: 255.0 : + 4.0	T
Setting point w/o	ut bumper spring	Ŧ
Rated speed rpm	: 200	Ŧ
CRT mm min.	: > 9.80	Ŧ
Testing:		Ŧ
Rated speed rpm rack travel man Tolerance man		† †
rack travel ma Rated speed rpm Tolerance 1/min	: 2.00 : 380 : ← 20	1
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.90 : + 0.05	† † † † † † † † † † † † † † † † † † † †
Rated speed rpm rack travel man Tolerance man	: 1000 : 13.90 : + 0.10	+ + + + + + + + + + + + + + + + + + +
ANEROID/ALTITUDE COMPENSATOR TEST		Ŧ
SETTING		Ŧ
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.90 : + 0.05	+ + + + + + + + + + + + + + + + + + + +
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 11.35 : + 0.15	+++++++++++++++++++++++++++++++++++++++
MEASUREMENT		Ŧ
Rated speed rpm	: 500	Ŧ
Pressure hPa rack travel am Tolerance mm	: 450 : 13.30 : ← 0.15	I I
Pressure hPa rack travel mm Tolerance mm	: 110 : 11.65 : + 0.05	Ţ

Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 220
Check speed 1/min Check	: > 80
speed 1/min	: < 280
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	: 1200
Rated speed rpm Del. quantity	: 1000
cm3/1000 strokes Tolerance	
cm3/1000 strokes Check tolerance cm3/1006S.	: +- 3.0 : +- 6.0
CRIS7 10005.	
Aneroid pressure hPa	: -
Rated speed rom Del. quantity	
cm3/1000 strokes Tolerance cm3/1000 strokes	
Check tolerance cm3/1000s.	: + 4.0
STARTING FUEL DEL	.IVERY
Del. quantity cm3/1000 strokes Tolerance	: 230.0
cm3/1000 strokes Check tolerance	: ← 10.0
cm3/1000s.	: ← 14.0
LOW IDLE	
Rated speed rpm	: 300
Rack travel in mm Tolerance mm	6.30 : + 0.10
Del. quantity cm3/1000 strokes	

Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 03.11.97 Test oil : ISO 4113

Combination No. : 0 402 046 234

Injection pump

Pump designation : PES6P110A820LS442 EP type number : 0 412 016 060

Governor

Governer design. : RQ300/1100PA327-5 Governer no. : 0 421 801 163

Cust. part No. :

Customer—spec. information Customer : MB-NFZ Motor : 407 STEHEND Power KW : 162.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0

Overflow quantity

min. l/h : 110
Tolerance l/h : + 20.0

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5 Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 1.5 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.25
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : _6- 2- 4- 1- 5-

: 3

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : + 0.10 Check

tolerance *NW : + 0.75

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm Tolerance mma	: 11.05 : ← 0.05
Del. quantity cm3/1000 strokes	: 117.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: + 3,5
Spreed	
Tolerance cm3/1000 strokes	: 4.0
Check tolerance cm3/1000s.	: 8.0
Rated speed rpm	: 300
Rack travel in mm Tolerance mma	: 6.10 : ← 0.10
Del. quantity cm3/1000 strokes	: 15.0
Tolerance cm3/1000 strokes Check tolerance	: + 3.0
cm3/1000s.	: +- 5.5
Tolerance	: 4.0
Check tolerance cm3/1000s.	: 7.0
(B) SETTING OF INU WITH GOVERNOR	ECTION FUMP
GUIDE SLEEVE TRAVE	EL .
Rated speed rpm guide sleeve	: 1153
travel mm Tolerance mm	: 7.63 : ← 0.15
Rated speed rpm guide sleeve	: 300
travel mm Tolerance mm	: 1.87 : + 0.20
Rated speed rpm	: 1100
guide sleeve travel ma Tolerance ma	: 7.00 : +- 0.10

Rated speed rpm	: 373
guide sleeve	
travel mm Tolerance mm	: 4.84 : +- 0.10
TO CET GITTE HEN	0.10
Rated speed rpm	: 460
guide sleeve travel mm	: 7.00
Tolerance am	: 7.00 : + 0.10
	4050
Rated speed rpm guide sleeve	: 1250
travel mm	: 11.50
Tolerance mm	: + 0.50
GUIDE SLEEVE POSI	TION
control lever	
position degree Rated speed rpm	: -1
Rated speed rpm	: 600
Rack travel in mm	: 13,50
Tolerance mm	: + 0.50
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm	: 1100
Aneroid pressure	. 1100
hPa	: -
Del. quantity	447.0
cm3/1000 strokes Tolerance	: 117.0
cm3/1000 strokes	: ← 1.0
Check tolerance	~ ~
cm3/1000s. Spreed	: +- 3.5
Tolerance	
cm3/1000 strokes	: 4.0
Check tolerance cm3/1000s.	: 8.0
CHS/ TUUUS.	: 8.0
DATED MACES	
RATED SPEED rack travel mm	: 10.00
Rated speed rpm	: 1145
Tolerance 1/min	: +- 5
rack travel mm	: 4.00
Rated speed rpm	: 1190
Tolerance 1/min	: + 15
rack travel mm	
・ひじい ぐしはるぐじ (編集	: 100
Tolerance mm	: 1.00 : + 1.00
Tolerance mm Rated speed rpm	

LOW IDLE

Setting point w/out bumper spring

Rated speed rpm : 100

CRT mm min. : > 7.50

Testing:

Rated speed rpm • 300 rack travel ma 6.10 Tolerance ma : + 0.10

rack travel am 2.00 370 Rated speed rpm Tolerance 1/min : +-20

TORQUE CONTROL

Rated speed rpm : 1100 11.05 rack travel mm : : + 0.05Tolerance mm

600 Rated speed rpm 11.05 rack travel mm : **←** 0.10 Tolerance ma

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm 600 Del. quantity cm3/1000 strokes : 95.0 Tolerance

cm3/1000 strokes : +-2.0 Check tolerance 5.0 : +-

cm3/1000s. Spreed Tolerance

cm3/1000 strokes: 6.0

Check tolerance

9.0 cm3/1000s.

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity

cm3/1000 strokes : 140.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance ca3/1000s. : +- 14.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm : 6.10 Tolerance man : + 0.10 Del. quantity

cm3/1000 strokes :

Tolerance cm3/1000 strokes : +-3.0

15.0

Check tolerance

cm3/1000s. 5.5 Spreed

Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. 7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 04.03.98 Test oil : U4.U3.98

Combination No. : 0 402 046 882

Injection pump

Pump designation : PES6P110A320R\$3329 EP type number : 0 412 016 743

60vernor

Governer design. : RQV325...1250PA1385

60verner no. : 0 421 814 209

Cust. pert No. : 1351707

Customer-spec. information

Customer : DAF

: NS177M-CBP Motor : 177.0

Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : + 2.0 Tolerance °C

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 165 Tolerance L/h : ← 5.0

Test nozzle holde

: 0 432 191 593 assembly

Opening pressure

: 208.5 Tolerance bar : ← 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 5.25

: + 0.05Tolerance mm

Check

: +- 0.10 tolerance mm

Rack travel in mm: 12.80

Tolerance mm : + 0.50

Firing order : 1-5-3-6-

: - 4

: 0- 60- 120- 180 Phasing

: - 240- 300

Tolerance : ← 0.50

Check

tolerance °N₩ : + 0.70

Start of delivery mark

Tolerance : **←** 0.10

Check

tolerance *NW : + 0.70

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mma: 12.80 Tolerance mn: $\leftarrow 0.05$

	∔ guide sleeve
Del. quantity cm3/1000 strokes : 154.5	travel mm : 3.02 Tolerance mm : + 0.25
Tolerance cm3/1000 strokes : + 1.0	+ Ratted speed rpm : 1510 - guide sleeve
Check tolerance	travel mm : 13.50 Tolerance mm : + 0.50
cm3/1000s. : +- 4.0	
Spreed	GUIDE SLEEVE POSITION
Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 1349 Rack travel in mm : 11.80
Check tolerance cm3/1000S. : 9.0	Tolerance mm : +- 1.30
	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 325	Rated speed rpm : 1600 Aneroid pressure
Rack travel in mm: 4.40	+ hPa : 1500
Tolerance mm : + 0.10	+ Del. quantity
Del. quantity	+ cm3/1000 strokes : 154.5
cm3/1000 strokes : 26.0 Tolerance	+ Tolerance + cm3/1000 strokes : ← 1.0
cm3/1000 strokes : + 3.0	+ Check tolerance
Check tolerance	+ cm3/1000s. : $+$ 4.0
cm3/1000°. : +- 6.0	Spreed'
Spreed Tolerance	+ Tolerance + cm3/1000 strokes : 5.0
cm3/1000 strokes : 8.0	+ Check tolerance
Check tolerance	+ cm3/1000s. : 9.0
cm3/1000s. : 12.0	+
	<u> </u>
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	CONTROL LEVER
	+ control lever
	position degree : 122.0
GUIDE SLEEVE TRAVEL	tolerance degree : + 4.0
Rated speed rpm : 1303	RATED SPEED
guide steeve travel mm : 10.33	+ rack travel mm : 11.80 + Rated speed rpm : 1290
travel mm : 10.33 Tolerance mm : +- 0.15	+ Tolerance 1/min : + 5
	+ Check
Rated speed rpm : 325	+ speed 1/min : + 10
guide sleeve travel mm : 1.25	rack travel mma : 4.00
travel mm : 1.25 Tolerance mm : + 0.20	Rated speed rpm : 1375
TOTOTOTO IN . TO U.CU	+ Tolerance 1/min : + 15
Rated speed rpm : 865	+ Check
guide sleeve	+ speed 1/min : + 20
travel mm : 5.43	†
Tolerance mm : +- 0.25	rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm : 520	Rated speed rpm : 1500

LOW IDILE

control lever

position degree : 76.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 225

CRT mm min. :> 6.00

Testing:

Rated speed rpm : 325
rack travel mm : 4.40
Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 375
Tolerance 1/min : + 50

TORQUE CONTROL

Rated speed rpm : 1000 rack travel mm : 12.80 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 600
Pressure hPa : 1500
rack travel mm : 12.80
Tolerance mm : + 0.10

Rated speed rpm : 600
Pressure hPa : rack travel mm : 7.10
Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 600

Pressure hPa : 210
rack travel ma : 8.60
Tolerance ma : + 0.10

Pressure hPa : 410 rack travel mm : 11.40 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 1000

Del. quantity

cm3/1000 strokes : 93.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : + 4.0

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 4.40
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 26.0
Tolerance
cm3/1000 strokes : + 3.0

cm3/1000 strokes : ← 3.0 Check tolerance cm3/1000s. : ← 6.0

Spreed Tolerance

cm3/1900 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 11.03.98 : ISO 4113

Combination No. : 0 402 076 058

Injection pump

Pump designation : PES6P120A700RS532-1

EP type number : 0 412 026 061

Governor

Governer design. : RSV300...1200P0A552

Governer no. : 0 421 833 368

Cust. part No. :

Customer-spec. information

Customer : IVECO-AIFO : 8361 SRM 37 Motor

TEST BENCH REQUIREMENTS

Inlet line : 2.4

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar: 1.5

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

208.5 bar Tolerance bar : ← 1.5

Test lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter: 2.5

B14

x Length man : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0

Tolerance bar : + 1.0

Prestroke mm : 3.55
Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.30

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 13.55

Tolerance mm : + 0.05

Rated speed rpm : 300

Rack travel in mm : 4.80

Tolerance mm : + 0.10

Del. quantity cm3/1000 strokes	: 20.0
Tolerance	
m3/1000 strokes	: 3.0
Check tolerance cm3/1000s.	: + 6.0
Spreed	
Tolerance	
cm3/1000 strokes Check tolerance	: 8.0
m3/1000s.	: 12.0
(B) SETTING OF IN VITH GOVERNOR	JECTION PUMP
SUIDE SLEEVE POSI	TION
control lever	
position degree Rated speed rom	: - 3
Rated speed rpm	: 800
Rack travel in ma	: 0.50
Tolerance am	: ← 0.20
governor spring ore-tension click setting x	: 4.00
CONTROL LEVER	
control lever	: 102.0
position degree tolerance degree	
_	
RATED SPEED rack travel ma	: 12.50
Rated speed rpm	: 1245
Tolerance 1/min	: +- 5
rack travel man	: 4.00
Rated speed rpm	: 1310
Tolerance 1/min	: +- 15
rack travel mm	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm	: 1450
· · · · · · · · · · · · · · · · · · ·	
•	

control lever position degree tolerance degree	: 70.0 : ← 4.0
Setting point w/o	out bumper spring
Rated speed rpm rack travel mm Tolerance mm	: 4.30
Testing:	
Rated speed rpm rack travel mma Tolerance mma	: 300 : 4.80 : ← 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 375 : + 30
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1200 : 13.55 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 550 : 13.60 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm	: 350 : 15.00 : ← 0.30
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTIM6	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 13.60 : + 0.10
Rated speed rpm Pressure hPa rack travel mma Tolerance mma	: 500 : - : 12.10 : + 0.10
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mma Tolerance mma	: 400 : 12.95 : ← 0.05

FUEL DELIVERY CHARACTERISTICS

rack travel mm : 15.00 Tolerance mm : + 0.30

Aneroid pressure

hPa :

Rated speed rpm : 500

STARTING FUEL DELIVERY

ESS test: With 12 V solenoid activated, rack must reach start position in max. control lever setting.

Rated speed rpm : 100

LOW IDLE

Rated speed rpm : 300

Rack travel in man: 4.80 Tolerance man: + 0.10

Del. quantity

cm3/1000 strokes : 20.0

Tolerance

cm3/1000 strokes : - 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.03.98 Test oil : ISO 4113

Combination No. : 0 402 076 060

Injection pump

Pump designation : PES6P110A720RS534 EP type number : 0 412 016 077

Governor

Governer design. : RSV450...1050P1A572

Governer no. : 0 421 833 428

Cust. part No. :

Customer-spec, information

Customer : IVECO-FRANCE Motor : 8365.25.533

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 155 Tolerance L/h : ← 20.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke name : 2.05
Tolerance name : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

. 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 10.05
Tolerance mm: + 0.05

1	Tolerance 1/min : +- 15
Rated speed rpm : 450	TOTAL TRANSPORT
Rack travel in mm : 5.00 Tolerance mm : +- 0.10	
Del. quantity	LOW IDLE
cm3/1000 strokes : 18.0 Tolerance	
cm3/1000 strokes : + 3.0 Check tolerance	control lever position degree : 80.0
cm3/1000s. : +- 6.0 +- Spreed	tolerance degree : +- 4.0
Tolerance cm3/1000 strokes : 8.0	Setting point w/out bumper spring
Check tolerance	Rated speed rpm : 450
cm3/1000s. : 12.0	rack travel mm : 4.50 Tolerance mm : +- 0.10
(B) SETTING OF INJECTION PUMP	Testing:
WITH GOVERNOR	Rated speed rpm : 450
	rack travel mm : 5.00 Tolerance mm : + 0.10
GUIDE SLEEVE POSITION +	rack travel am : 2.90
+	Rated speed rpm : 560
control lever	Tolerance 1/min : +- 30
position degree : -3 + Rated speed rpm : 800 +	
Mared speed (pm : 500	TORQUE CONTROL
Rack travel in mm: 0.50	Rated speed rpm : 1050
Tolerance ram : + 0.20 +	rack travel mm : 10.05
t de la companya de l	Tolerance mm : ← 0.05
governor spring + pre-tension +	Rated speed rpm : 550
click setting x : 4.00	rack travel (am : 10.16
‡	Tolerance mm : + 0.10
CONTROL LEVER	ANEROID/ALTITUDE
control lever	COMPENSATOR TEST
position degree : 108.0	
tolerance degree : + 4.0 +	SETTING
RATED SPEED +	Rated speed rpm : 500
rack travel mm : 9.00	Pressure hPa : 900 rack travel mm : 10.10
Rated speed rpm : 1095 + Tolerance 1/min : + 5 +	Tolerance mm : + 0.10
+	·
rack travel mm : 4.00 +	Rated speed rpm : 500
Rated speed rpm : 1130 +	Pressure hPa : - rack travel mm : 9.30
Tolerance 1/min : +- 15	rack travel mm : 9.30 Tolerance mm : +- 0.10
rack travel mm : 0.85 Tolerance mm : + 0.55	MEASUREMENT
Rated speed rpm : 1300	Rated speed rpm : 500
rack travel mm : 4.00 + Rated speed rpm : 1145 +	Pressure hPa : 450
B18	

rack travel am : 9.91 : + 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 900 Rated speed rpm 550 :

Del. quantity cm3/1000 strokes : 121.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000S. : **←** 5.0

Aneroid pressure

hPa 500 Rated speed rpm

Del. quantity

104.0 cm3/1000 strokes :

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000S. : → 4.0

STARTING FUEL DELIVERY

ESS test: With 24 V solenoid activated, rack must reach start position in max. control lever setting.

100 Rated speed rpm :

Del. quantity

cm3/1000 strokes : 200.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000S. : + 19.0

LOW IDLE

Rated speed rpm : 450

5.00 Rack travel in mm:

Tolerance min 0.10

Del. quantity

cm3/1000 strokes : 18.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : +- 6.0

Spreed

Tolerance

8.0 cm3/1000 strokes :

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 12.02.98 Test oil : ISO 4113

Combination No. : 0 402 646 669

Injection purp

Pump designation : PE6P130A720RS7197 EP type number : 0 412 636 815

Governor

Governor design. : RQV425...975PA1292

Governer no. : 0 421 814 184

Cust. part No. :

Customer-spec. information

Customer : IVECO-FRANCE Motor : 8215.42.985 Power KW : 260.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : 2.5 Tolerance bar : - 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-6G-120-180-240

: -300

Tolerance : +- C.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Cneck

tolerance *NW : +- 0.40

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 975

Rack travel in mm: 13.45
Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 257.0

B20

Tolerance +	guide sleeve
ca3/1000 strokes : +- 1.0 +	travel mm : 10.00
	Tolerance mm : + 0.25
Check tolerance	
cm3/1000s. : + 4.0	Rated speed rpm : 1220
1120/10000	guide sleeve
Conned	
Spreed	
<u> </u>	Tolerance mm : ← 0.50
Tolerance	
cm3/1000 strokes : 5.0 +	
	GUIDE SLEEVE POSITION
Check tolerance	
cm3/1000s. : 8.0	
+	control lever
	position degree : - 1
1	Rated speed rpm : 1125
Rated speed rpm : 425	Traced opera i più
The cost obstace chair to the	Rack travel in mm : 10.00
Rack travel in mm: 5.00	Tolerance man : + 2.70
	TOTALICE HAR STEELEN
Tolerance mm : + 0.10	
Del. quantity	PHIL LOAD DE THERM AT THE LABOR TO
cm3/1000 strokes : 22.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	
cm3/1000 strokes : $+$ 3.0 $+$	Rated speed rpm : 975
Check tolerance +	Aneroid pressure
cm3/1000s, : + 7.0 +	hPa : 900
Spreed	Del. quantity
Tolerance	cm3/1000 strokes : 257.0
cm3/1000 strokes : 8.0	Tolerance
Check tolerance	cm3/1000 strokes : + 1.0
	Check tolerance
cm3/1000s. : 12.0 +	
†	
	Spreed
(B) SETTING OF INJECTION PUMP	Tolerance
WITH GOVERNOR +	cm3/1000 strokes : 5.0
* *	Check tolerance
	cm3/1600s. : 8.0
GUIDE SLEEVE TRAVEL +	
+	
Rated speed rpm : 1034	
guide sleeve	CONTROL LEVER
travel mm : 7.23	
Tolerance mma : + 0.15	control lever
	position degree : 119.0
Rated speed rpm : 425	tolerance degree : + 4.0
	totel diluc degree 7.0
guide sleeve	Ditto Coeth
travel mm : 2.40	RATED SPEED
Tolerance mm : + 0.20	rack travel mm : 12.40
†	Rated speed rpm : 1020
Rated speed rpm : 860 +	Tolerance 1/min : + 5
guide sleeve	
travel mm : 5.34	rack travel mm : 4.00
	rack travel mm : 4.00 Rated speed rpm : 1080
travel mm : 5.34	
travel mm : 5.34 Tolerance mm : + 0.25	Rated speed rpm : 1080
travel mm : 5.34 Tolerance mm : + 0.25 Rated speed rpm : 580	Rated speed rpm : 1080 Tolerance 1/min : + 15
travel mm : 5.34 Tolerance mm : + 0.25 Rated speed rpm : 580 guide sleeve	Rated speed rpm : 1080 Tolerance 1/min : + 15 rack travel mm : 0.50
travel mm : 5.34 Tolerance mm : + 0.25 Rated speed rpm : 580 guide sleeve travel mm : 3.68	Rated speed rpm : 1080 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
travel mm : 5.34 Tolerance mm : + 0.25 Rated speed rpm : 580 guide sleeve	Rated speed rpm : 1080 Tolerance 1/min : + 15 rack travel mm : 0.50
travel mma : 5.34 Tolerance mma : + 0.25 Rated speed rpm : 580 guide sleeve travel mma : 3.68 Tolerance mma : + 0.25	Rated speed rpm : 1080 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50
travel mm : 5.34 Tolerance mm : + 0.25 Rated speed rpm : 580 guide sleeve travel mm : 3.68	Rated speed rpm : 1080 Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50

LOW IDLE

control lever

position degree : 94.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 325

CRT mm min. :> 6.50

Testing:

Rated speed rpm : 425 rack travel mm : 5.00 Tolerance mm : +- 0.10

Rated speed rpm : 470

TORQUE CONTROL

Rated speed rpm : 975
rack travel mm : 13.45
Tolerance mm : + 0.05

Rated speed rpm : 550 rack travel rmm : 13.50 Tolerance rmm : +- 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Fressure hPa : 900
rack travel mm : 13.50
Tolerance mm : + 0.10

Rated speed rpm : 500
Fressure hPa : rack travel mm : 10.90
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 470
rack travel mm : 11.50
Tolerance mm : +- 0.20

Pressure hPa : 550 rack travel mm : 12.75

Tolerance and $: \leftarrow 0.05$

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 900 Rated speed rpm : 550

Del. quantity

cm3/1000 strokes : 267.0

Tolerance

cm3/1000 strokes : +- 4.0

Check tolerance

cm3/1000s. : +- 7.0

Aneroid pressure

hPa : -Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 181.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

ESS test: With 24 V solenoid activated, rack must reach start position in max. control lever setting.

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 270.0

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance

cm3/1000s. : +- 24.0

LOW IDLE

Rated speed rpm : 425

Rack travel in mm: 5.00
Tolerance mm: + 0.10
Del. quantity
cm3/1000 strokes: 22.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance cm3/1000s. : +- 7.0

Spreed

Tolerance cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 06.03.98 Test oil : ISO 4113

Combination No. : 0 402 646 763

Injection pump

Pump designation : PE6P120A320LS7834

: -10

EP type number : 0 412 626 853

60verno:

Governer design. : RQV300...1050PA1065

: -2

Governer no. : 0 421 814 135

Cust. part No. : 0260743702

Customer spec. information Customer : MB-NFZ Motor : 0:4401 LA Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. *C : 40
Tolerance *C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 220 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5

Tolerance bar : +- 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : + 0.10

Check

tolerance *NW : + 0.75

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 550

	1	
Rack travel in was Tolerance man	: 14.80 : \(\to 0.05	Rated speed rpm : 420 guide sleeve travel mm : 2.49
Del. quantity cm3/1000 strokes	: 230.0	Tolerance nm : +- 0.25
Tolerance cm3/1000 strokes	: + 1.0	- Rated speed rpm : 750 - guide sleeve - travel mm : 4.87
Check tolerance		Tolerance mm : + 0.25
cm3/1000s.	: + 4.0	- Rated speed rpm : 1310 - guide sleeve
Spreed		- travel mm : 13.50 - Tolerance mm : + 0.50
Tolerance cm3/1000 strokes	: 5.0	
Check tolerance		GUIDE SLEEVE POSITION
ca3/1900s.	: 9.0	- control lever
		- position degree : - 1 - Rated speed rpm : 1200
Rated speed rpm	: 300	- Rack travel in mm : 13.80
Rack travel in mm Tolerance mm	: 5.20 : + 0.10	- Tolerance mm : +- 1.30 -
Del. quantity cm3/1000 strokes	: 13.0	FULL LOAD DELIVERY AT FULL LOAD
Tolerance cm3/1900 strokes	: + 3.0	- Rated speed rpm : 550
Check tolerance cm3/1000s.	: +- 6.0	- Aneroid pressure - hPa : 1000
Spreed Tolerance	‡	- Del. quantity - cm3/1000 strokes : 230.0
cm3/1000 strekes Check tolerance	: 6.0	- Tolerance - cm3/1000 strokes : +- 1.0
cm3/1000s.	: 10.0	- Check tolerance - cm3/1000s. : +- 4.0
(B) SETTING OF IN	JECTION PUMP	- Spreed - Tolerance
WITH GOVERNOR	1	- cm3/1000 strokes : 5.0 - Check tolerance - cm3/1000s. : 9.0
GUIDE SLEEVE TRAV	EL	- cm3/1000s. : 9.0 -
Rated speed ram guide steeve	: 1108	- CONTROL LEVER
travel mm	: 9.82	-
Tolerance ma	: ← 0.25	- control lever - position degree : 104.0
Rated speed rpm guide sleeve	: 300	tolerance degree : + 4.0
travel mm	: 1.13	- RATED SPEED
Tolerance and	: + 0.25	- rack travel man : 13.80 - Rated speed rpm : 1095
Rated speed rpm guide steeve	: 370	- Tolerance 1/min : + 5
travel mm Tolerance mm	: 2.00 : ← 0.25	- rack travel mmn : 4.00 - Rated speed rpm : 1195

STOP

Tolerance 1/min		# MEASUREMENT	
rack travel mea Tolerance mea Rated speed rpm	: ← 0.75	Rated speed rpm	: 400
nated Speed (pin	. , , , , , , , , , , , , , , , , , , ,	Pressure hPa rack travel mma Tolerance mana	: 400 : 12.90 : + 0.20
LON IDLE		Pressure hPa rack travel mm Tolerance mm	: 14.15
control lever position degree tolerance degree	: 68.0 : + 4.0	Start interlock	
Setting point w/c	out bumper spring	Rated speed rpm	
Rated speed rpm	: 200	Check	
CRT mmm min.	: > 8.10	speed 1/min Check	: > 80
Testing:		speed 1/min	: < 240
Rated speed rpm rack travel mm Tolerance mm	: 300 : 5.20 : ← 0.10	FUEL DELIVERY CHA	ARACTERISTICS
Rated speed rpm	: 350	Aneroid pressure	: 1000
TORQUE CONTROL Rated speed rpm	• 550	Rated speed row Del. quantity cm3/1000 strokes	
rack travel mm Tolerance mm	: 14.80	Tolerance cm3/1000 strokes Check tolerance	
Rated speed rpm rack travel man Tolerance man	: 1050 : 14.80 : ← 0.10	cm3/1000s. Spreed Tolerance	: + 6.0
Rated speed rpm	: 700	cm3/1000 strokes Check tolerance	
rack travel mma Tolerance mma		- cm3/100Cs.	: 12.0
ANEROID/ALTITUDE COMPENSATOR TEST		rack travel mma Tolerance mma	: 14.80 : ← 0.05
SETTING		Aneroid pressure hPa	: -
Rated speed rpm Pressure hPa	: 400 : 1000	Rated speed rpm Del. quantity cm3/1000 strokes	
rack travel man Tolerance man	: 14.80 : + 0.05	Tolerance cm3/1000 strokes	
Rated speed rpm Pressure hPa		Check tolerance cm3/1000s. Spreed	: +- 4.0
rack travel man Tolerance man	: 10.50 : + 0.15	Tolerance cm3/1000 strokes	: 8.0

Check tolerance

cm3/1000s. 12.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 210.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance cm3/1000s. : **←** 19.0

LOW IDLE

300 Rated speed rpm :

5.20 Rack travel in mm : : + 0.10 Tolerance ma

Del. quantity

ca3/1000 strckes : 13.0

Tolerance

cm3/1000 strokes : +-3.0

Check tolerance

cm3/1000s. : +-6.0

Spreed

Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000S. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 23.10.97 Test oil : ISO 4113

Combination No. : 0 402 648 703

Injection pump

Pump designation : PE8P12OA32OLS7880 EP type number : 0 412 628 889

Governor

Governer design. : RCV350...1050FA1352

Governer no. : 0 421 814 197

Cust. part No. : 0270747202

Customer—spec. information Customer : MB-NFZ

Motor : 0M442 LA euromot

Power KW : 405.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 2.0 Tolerance bar : + C.1

Overflow quantity

min. L/h : 200 Tolerance L/h : + 10.0

Test nozzle holde

assembly : 2 568 890 1105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : 4 1.0

Prestroke mm : 4.75
Tolerance mm : + 0.05
Check

tolerance ma

Rack travel in mm : 20.50

Toterance mm : +- 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

: **←** 0.10

Phasing : 0-45-90-135-180

: -225-270-315

Tolerance : ← 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

Tolerance : + 0.10

Check

tolerance *NW : + 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1050

Rack travel in man Tolerance man		+	Rated speed rpm guide sleeve	: 580
		†	travel mm	: 3.62
Del. quantity cm3/1000 strokes	: 282.0	+	Tolerance mm	: ← 0.25
			Rated speed rpm	: 1204
Tolerance			guide sleeve	
cm3/1000 strokes	: +- 1.0		travel mm	: 10.00
			Tolerance mm	: ← 0.25
Check tolerance cm3/1000s.	: +- 4.0	‡	Rated speed rpm	: 1300
	•		guide sleeve	
Spreed			travel mm	: 11.50
•		+	Tolerance mm	: ← 0.50
Tolerance		+		
cm3/1000 strokes	: 6.0	+		
			GUIDE SLEEVE FOSI	FION
Check tolerance		+		
cm3/1000s.	: 9.0	t		
			control lever	_
			position degree	: - 1
	V2.00.00	†	Rated speed rpm	: 1154
Rated speed rpm	: 350	†		47.00
David American Sur am	. E 70		Rack travel in mm	
Rack travel in man		†	Tolerance man	: +- 1.30
Tolerance mm	: +- 0.10	T		
Del. quantity cm3/1000 strokes	: 19.0	Ī	FULL LOAD DELIVER	OT FULL LOS
Tolerance	. 17.0	I	POLL LUMD DELIVER	I AT POLL LO
cm3/1000 strokes	· +- 3 ft	I	Rated speed rpm	: 1050
Check tolerance	5.0		Aneroid pressure	. 1000
cm3/1000s.	: +- 6.0		hPa	: 1300
Spreed		,	Del. quentity	
Tolerance			cm3/1000 strokes	: 282.0
cm3/1000 strokes	: 6.0		Tolerance	
Check tolerance		+	cm3/1000 strokes	: ← 1.0
cm3/1000s.	: 10.0	+	Check tolerance	
		+	cm3/1000s.	: ← 4.0
			Spreed	
(B) SETTING OF IN	JECTION PUMP		Tolerance	
WITH GOVERNOR		†	cm3/1000 strokes	: 6.0
		†	Check tolerance	
CITAL OLEGIE TON			cm3/1000s.	: 9.0
GUIDE SLEEVE TRAV	EL	†		
Rated speed rpm	• 1110	I		
guide sleeve	. 1110	I	CONTROL LEVER	
travel am	: 8.10	1	TOTAL CETE	
trevel mm Tolerance mm	: ← 0.15	1	control lever	
			position degree	: 119.0
Rated speed rpm	: 350		tolerance degree	
guide sleeve		+	•	
travel mm	: 1.48		RATED SPEED	
travel mma Tolerance mma	: ← 0.20	+	rack travel mm	: 14.00
		+	Rated speed rpm	: 1098
Rated speed rpm	: 900	t	Tolerance 1/min	: +- 8
guide sleeve		†		,
travel mm	5.69	†	rack travel mm	: 4.00
Tolerance mon	: + 0.25	+	Rated speed rpm	: 1190

Rated speed rpm guide sleeve	: 580
travel mm Tolerance mm	: 3.62 : ← 0.25
Rated speed rpm guide sleeve	
travel mm Tolerance mm	: 10.00 : + 0.25
Rated speed rpm guide sleeve	
travel mma Tolerance mm	: 11.50 : + 0.50
GUIDE SLEEVE FOSI	TION
control lever	
position degree Rated speed rpm	: 1154
Rack travel in mm Tolerance mm	: 14.00 : + 1.30
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm	
Rated speed rpm Aneroid pressure hPa	
Rated speed rpm Aneroid pressure	: 1050 : 1300
Rated speed rpm Aneroid pressure hPa Del. quentity cm3/1000 strokes	: 1050 : 1300 : 282.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 1050 : 1300 : 282.0
Rated speed rpm Aneroid pressure hPa Del. quentity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 1050 : 1300 : 282.0 : ← 1.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 1050 : 1300 : 282.0 : ← 1.0 : ← 4.0
Rated speed rpm Aneroid pressure hPa Del. quentity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 1050 : 1300 : 282.0 : ← 1.0 : ← 4.0 : 6.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1050 : 1300 : 282.0 : ← 1.0 : ← 4.0 : 6.0 : 9.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1050 : 1300 : 282.0 : ← 1.0 : ← 4.0 : 6.0 : 9.0

Tolerance 1/min	: ← 15
rack travel mm Tolerance mm Rated speed rpm	: 0.75 : ← 0.75 : 1250
LOW IDLE	
control lever position degree tolerance degree	: 67.0 : ← 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 250
CRT mmm min.	: > 7.50
Testing:	
Rated speed rpm rack travel mon Tolerance man	: 350 : 5.70 : + 0.10
Rated speed rpm	: 400
TORQUE CONTROL Rated speed rom rack travel mma Tolerarice mma	: 15.00 : → 0.05
Rated speed rpm rack travel mea Tolerance mea	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTINE	
Rated speed rpm Pressure hPa	: 500 : -
MEASUREMENT	
Pressure hPa rack travel mma Tolerance mma	: 500 : 1.40 : ← 0.05
Pressure hPa rack travel man Tolerance man	: 1000 : 5.80 : +- 0.20

Start interlock		
Rated speed rpm Rated speed rpm	: > 210 : < 270	
Check speed 1/min Check	: > 190	
speed 1/min	: < 290	
FUEL DELIVERY CHA	ARACTERISTICS	
Aneroid pressure		
hPa	: 1300	
	: 500	
Rated speed rpm	. 500	
Del. quantity	200 5	
cm3/1000 strokes Tolerance	: 298.5	
cm3/1000 strokes	: +- 3.0	
Check tolerance	, 3.0	
cm3/1000s.	: + 6.0	
Spreed		
Tolerance		
cm3/1000 strokes	: 8.0	
Check tolerance		
cm3/1000s.	: 12.0	
Aneroid pressure		
hPa	: -	
Rated speed rpm	: 500	
Del. quantity	4770.0	
cm3/1000 strokes	: 132.0	
Tolerance cm3/1000 strokes	: + 1.0	
Check tolerance		
cm3/1000s.	: +- 4.0	
Spreed	· -	
Tolerance		
cm3/1000 strokes	: 8.0	
Check tolerance	4.0.	
cm3/1000s.	: 12.0	
BOOLINGS ALLES		
REDUCED QUANTITY		
Aneroid pressure		
hPa	: 1300	
Rated speed rpm	: 1050	
Del. quantity		
cm3/1000 strokes	: 225.0	
Tolerance	-	
cm3/1000 strokes	: ← 2.0	
Check tolerance		
cm3/1000s.	: + 5.0	

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 280.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

: + 14.0 cm3/1000s.

LOW IDLE

Rated speed rpm : 350

5.70 Rack travel in mm : : **←** 0.10 Tolerance rem

Del. quantity

cm3/1000 strokes : 19.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. 6.0

Spreed

Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 18.12.97 Test oil : ISO 4113

Combination No. : 0 402 666 805

Injection pump

Pump designation : PE6P120A320/3LS7914 EP type number : 0 412 626 968

Governor

Governer design. : RSV600...1050P0A642

Governer no. : 0 421 833 556

Cust. part No. : 0280743702

Customer—spec. information Customer : MB-NFZ Motor : OM 441 LA Power KW : 300.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 220 Tolerance l/h : → 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.75
Tolerance mm : + 0.05
Check

Lneck

tolerance mm : \leftarrow 0.10

Rack travel in mm : 19.00 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1

Phasing : 0-45-120-165-240

: -285

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : \leftarrow 0.10

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm : 13.70
Tolerance mm : + 0.05

+	Aneroid pressure
Del. quantity	hPa : -
cm3/1000 strokes : 251.0	Del. quantity
+	cm3/1000 strokes : 251.0
Tolerance + 1.0 +	Tolerance cm3/1000 strokes : +- 1.0
CHEP/1000 Strokes : ** 1.0	Check tolerance
Check tolerance	cm3/1000s. : +- 4.0
cm3/1000s. : +- 4.0	Spreed
<u> </u>	Tolerance
Spreed	cm3/1000 strokes : 6.0
Talaman as	Check tolerance cm3/1000s. : 9.0
Tolerance + cm3/1000 strokes : 6.0 +	cm3/1000s. : 9.0
Castiones: 6.0	
Check tolerance	
cm3/1000s. 9.0	CONTROL LEVER
†	control lever
Dated award and 1 400	position degree : 88.0
Rated speed rpm : 600	tolerance degree : + 4.0
Rack travel in mm: 2.00	RATED SPEED
Tolerance mn : + 0.10	rack travel mm : 12.70
Del. quantity	Rated speed rpm : 1115
cm3/1000 strokes : 17.0	Tolerance 1/min : + 5
Tolerance	Check
cm3/1000 strokes : + 3.0	speed 1/min : + 10
Check tolerance cm3/1000s. : 6.0	
Shreed	
Spreed + Tolerance +	
Spreed + Tolerance + cm3/1000 strokes : 8.0 +	LOW IDLE
Tolerance + 8.0 Check tolerance +	LOW IDLE
Tolerance + cm3/1000 strokes : 8.0 +	
Tolerance cm3/1000 strokes : 8.0 Check tolerance	control lever
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s. : 12.0	control lever position degree : 71.0
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP	control lever
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s. : 12.0	control lever position degree : 71.0 tolerance degree : + 4.0
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP	control lever position degree : 71.0 tolerance degree : + 4.0 Testing:
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever position degree: -3	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever position degree : - 3 Rated speed rpm : 800	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever position degree: -3 Rated speed rpm: 800 Rack travel in mm: 0.50	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever position degree : - 3 Rated speed rpm : 800	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30 SET IDLE AUXILIARY SPRING
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree: -3 Rated speed rpm: 800 Rack travel in mm: 0.50 Tolerance mm: : 0.20	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree: -3 Rated speed rpm: 800 Rack travel in mm: 0.50 Tolerance mm: : + 0.20	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30 SET IDLE AUXILIARY SPRING
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree: -3 Rated speed rpm: 800 Rack travel in mm: 0.50 Tolerance mm: : -0.20 governor spring pre-tension	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30 SET IDLE AUXILIARY SPRING rack travel mm : 2.00
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree: -3 Rated speed rpm: 800 Rack travel in mm: 0.50 Tolerance mm: : + 0.20	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30 SET IDLE AUXILIARY SPRING rack travel mm : 2.00 TORQUE CONTROL Rated speed rpm : 1075
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree: -3 Rated speed rpm: 800 Rack travel in mma: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 1.50	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30 SET IDLE AUXILIARY SPRING rack travel mm : 2.00 TORQUE CONTROL Rated speed rpm : 1075 rack travel mm : 13.70
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree: -3 Rated speed rpm: 800 Rack travel in mm: 0.50 Tolerance mm: : -0.20 governor spring pre-tension	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30 SET IDLE AUXILIARY SPRING rack travel mm : 2.00 TORQUE CONTROL Rated speed rpm : 1075
Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree: -3 Rated speed rpm: 800 Rack travel in mma: 0.50 Tolerance mm: + 0.20 governor spring pre-tension click setting x: 1.50	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 600 rack travel mm : 2.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30 SET IDLE AUXILIARY SPRING rack travel mm : 2.00 TORQUE CONTROL Rated speed rpm : 1075 rack travel mm : 13.70

co5

rack travel and : 14.75
Tolerance and : + 0.10

Rated speed rpm : 1000 rack travel mm : 14.35 Tolerance mm : + 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 800

Del. quantity

cm3/1000 strokes : 291.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : +- 6.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 290.0

Tolerance

cm3/1000 strakes : + 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 600

Rack travel in mm : 2.00 Tolerance mm : +- 0.10

Del. quantity

cm3/1000 strokes : 17.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 13.02.98 Edition Test oil : ISO 4113

Combination No. : 0 402 746 633

Injection Dump

Pump designation : PES6P120A720RS7366 EP type number : 0 412 726 933

Covernor

Governer design. : RQ300/1050PA1344 Governer no. : 0 421 801 821

Cust, part No. :

Customer-spec. information

Customer : IVECO-FRANCE Motor : 8460.41R.7143

Power KM : 214.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

main. L/h : 160 Tolerance L/h : + 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 Tolerance bar : \leftarrow 1.5 Test lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance ber : + 1.0

: 2.85 Prestroke mm : ← 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 20.50 Tolerance mm : +- 0.50

Firing order : 1-5- 3- 6- 2-

Phasing : 0-60-120-180-240

: -300

: **←** 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Start of delivery mark

Check

tolerance *NW : +- 0.40

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 11.55

Tolerance um : \to 0.05 \tag{+}	Del. quantity
Del. quantity	cm3/1000 strokes : 234.0 Tolerance
cm3/1000 strokes : 234.0	cm3/1000 strokes : +- 1.0 Check tolerance
Tolerance cm3/1000 strokes : + 1.0	cm3/1000s. : +- 4.0 Spreed Tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
Spreed	CHIS7 (OUUS 9.0
Tolerance cm3/1000 strokes : 5.0	RATED SPEED rack travel mma : 10.50 Rated speed rpm : 1103
Check tolerance cm3/1000s. : 9.0	Tolerance 1/min : + 8 Check spœdd 1/min : + 13
Rated speed rpm : 300	rack travel mm : 4.00 Rated speed rpm : 1175
Rack travel in am : 6.30	Tolerance 1/min : + 15 Check
Tolerance mm : + 0.10	speed 1/min : ← 20
Del. quantity cm3/1000 strokes : 23.0	rack travel mm : 0.50 Tolerance mm : +- 0.50
Tolerance cm3/1000 strokes : + 3.0	Tolerance mm : +- 0.50 Rated speed rpm : 1350
Check tolerance + 6.0 + 6.0	
Spreed	
Spreed + Tolerance + cm3/1000 strokes : 8.0 +	LOW IDLE
Spreed + Tolerance +	LOW IDLE
Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0	control lever position degree : 71.0
Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	control lever position degree : 71.0 tolerance degree : + 4.0
Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP	control lever position degree : 71.0 tolerance degree : + 4.0 Secting point w/out bumper spring
Spreed Tolerance cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP	control lever position degree : 71.0 tolerance degree : + 4.0
Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever	control lever position degree : 71.0 tolerance degree : + 4.0 Secting point w/out bumper spring Rated speed rpm : 200
Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION	control lever position degree : 71.0 tolerance degree : + 4.0 Secting point w/out bumper spring Rated speed rpm : 200 CRT mm min. : > 7.80 Testing: Rated speed rpm : 300
Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : 109 Rated speed rpm : 500 Rack travel in mm : 20.00	control lever position degree : 71.0 tolerance degree : + 4.0 Secting point w/out bumper spring Rated speed rpm : 200 CRT mm min. :> 7.80 Testing:
Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : 109 Rated speed rpm : 500	control lever position degree : 71.0 tolerance degree : 4.0 Secting point w/out bumper spring Rated speed rpm : 200 CRT mm min. : > 7.80 Testing: Rated speed rpm : 300 rack travel mm : 6.30 Tolerance mm : 40.10 rack travel mm : 2.00 Rated speed rpm : 395
Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : 109 Rated speed rpm : 500 Rack travel in mm : 20.00	control lever position degree : 71.0 tolerance degree : 4.0 Secting point w/out bumper spring Rated speed rpm : 200 CRT mm min. : > 7.80 Testing: Rated speed rpm : 300 rack travel mm : 6.30 Tolerance mm : + 0.10 rack travel mm : 2.00
Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control lever position degree : 109 Rated speed rpm : 500 Rack travel in mm : 20.00 Tolerance mm : + 0.80	control lever position degree : 71.0 tolerance degree : 4.0 Secting point w/out bumper spring Rated speed rpm : 200 CRT mm min. : > 7.80 Testing: Rated speed rpm : 300 rack travel mm : 6.30 Tolerance mm : 40.10 rack travel mm : 2.00 Rated speed rpm : 395

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Tolerance ==	: ← 0.05	†		
Dated anned son	: 425	Amanaid	pressure	
Rated speed rpm rack travel ma		+ hPa	: 1200	
Tolerance no	: + 0.10	1	peed rpm : 500	
loterarice min	: +- 0.10	T Rated St	yeed 17m : 300	E.
		† rack tra	vel mm : 12.7	
Rated speed rpm	: 500		e maa : ← 0.1	IJ
rack travel mm	: 12.75	+ Del. qui	intity	_
Tolerance mm	: ← 0.10		strokes : 245.	U
	700	+ Toleran		_
Rated speed rpm) strokes : \leftarrow 4.	U
rack travel mm	: 12.50		olerance	_
Tolerance mm	: ← 0.15	+ cm3/1000	os. $: \leftarrow 7$.	U
	075	†		
Rated speed rpm		T		
rack travel mm	: 11.90		pressure	
Tolerance mm	: ← 0.15	+ hPa		
			peed rpm : 600	
		Del. que	antity	0
ANEROID/ALTITUDE			strokes : 152.	U
COMPENSATOR TEST		+ Toleran	-	0
			$)$ strokes : \leftarrow 1.	Ü
			olerance	_
SETTING		+ cm3/1000	DS. : +- 4.	0
	4.5.5	+		
Rated speed rpm		+		
Pressure hPa	: 1200	† =====================================		
rack travel mm	: 12.75	+ STARTIN	S FUEL DELIVERY	
Tolerance am	: ← 0.10	†	1 400	
	400		beed rum: 100	^
Rated speed rpm	: 600		avel ma : 11.6	-
Pressure hPa	: -		ce,man : +− 0.3	U
rack travel mm	: 9.60		entity	
Tolerance mm	: ← 0.20		3 strokes : 105.	U
		+ Toleran	-	
MEASUREMENT			$3 \text{ strokes } : \leftarrow 15.$	U
			olerance	
Rated speed rpm	: 600	+ cm3/100	os. : +- 19.	U
	2/0	†		
Pressure hPa	: 260	†		
rack travel mm	: 10.40	Ť		
Tolerance mm	: ← 0.20	1		_
n	. /20	+ LOW IDL	:	
Pressure hPa	: 420	†	700	
rack travel mm	: 12.00	+ Rated s	peed rpm : 300	
Tolerance mm	: ← 0.05	†		
			avet in mm: 6.3	
			ce mma : +- 0.1	U
Start interlock		+ Del. qu		^
			O strokes : 23.	U
Rated speed rom		Toleran		_
Rated speed rpm	: < 250		0 strokes : $+$ 3.	U
			olerance	_
Check		+ cm3/100	DS. : ← 6.	0
speed 1/min	: > 80	Spreed		
Check		+ Toleran		_
speed 1/min	: < 260		D strokes : 8.	0
			olerance	
			os. : 12.	0
FUEL DELIVERY CHA	RACTERISTICS	+		
		•		

Note reserks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 06.03.98 Test oil : ISO 4113

Combination No. : 0 402 746 956

Injection pump

Pump designation : PES6P120A720RS7292

: -1

EP type number : 0 412 726 939

6overnor

Governer design. : RQV350...1150PA1074

: -1K

Governer no. : 0 421 815 365

Cust. part No. : 0250740902

Customer spec. information
Customer : MB-NFZ
Motor : OM366LA
Power KW : 142.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

remp. °C : 4G
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Tolerance l/h: \leftarrow 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : ∠26.0 Tolerance bar : ← 1.0

Prestroke mm : 4.00 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in man : 20.50 Tolerance man : ← 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50 Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 3.30 Tolerance : +- 0.10

Check

tolerance *NW : \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1150

		↓ Tolerance mm : ← 0.25
Rack travel in mo	14.20	Rated speed rpm : 540
Tolerance am	: ← 0.05	→ guide sleeve
		+ travel mm : 3.09
Del. quantity		Tolerance mm : + 0.25
cm3/1000 strokes	: 266.0	}
	**************************************	Rated speed rpm : 1480
Tolerance		+ guide sleeve
cm3/1000 strokes	: ← 1.0	travel mm : 13.50
	**************************************	+ Tolerance mm : + 0.50
Check tolerance		†
cm3/1000s.	: +- 4.0	CUIDE CLEME DOCUTON
Connect		+ GUIDE SLEEVE POSITION
Spreed		†
Tolerance		control lever
cm3/1000 strokes	. 80	position degree : -1
CHED/ TOOD SET ONES	. 0.0	Rated speed rpm : 1331
Check tolerance		There's speed spee
cm2/1000s.	: 12.0	Rack travel in mm : 13.50
· · · · · · · · · · · · · · · · · · ·		Tolerance mm : + 1.30
Rated speed rpm	: 350°	+ FULL LOAD DELIVERY AT FULL LOAD STOP
		†
Rack travel in m		+ Rated speed rpm : 1150
Tolerance mm	: ← 0.10	Aneroid pressure
Del. quantity	. 47.0	+ hPa : 1500
sm3/1000 strokes	: 13.0	+ Del. quantity + cm3/1000 strokes : 266.0
Tolerance cm3/1000 strokes	7.0	+ Tolerance
Check tolerance	. — 3.0	- cm3/1000 strokes : + 1.0
cm3/1000S.	: +- 6.0	- Check tolerance
Spreed	0.0	+ cm3/1000s, : +- 4.0
Tolerance		Spreed
cm3/1000 strokes	: 4.0	Tolerance
Check tolerance		cm3/1000 strokes : 8.0
cm3/1000s.	: 8.0	+ Check tolerance
		+ cm3/1000s. : 12.0
		+
(B) SETTING OF I	VUECTION PUMP	†
WITH GOVERNOR		CONTROL LEVED
		CONTROL LEVER
GUIDE SLEEVE TRAY	/FI	T control lever
SOUND DESIGNE INVI	W by ten	position degree : 109.0
Rated speed rpm	: 1206	tolerance degree : + 4.0
guide steeve	. 200	1
travel mm	: 9.35	RATED SPEED
travel mm Tolerance mm	: ← 0.15	rack travel mm : 13.50
		+ Rated speed rpm : 1195
Rated speed rpm	: 350	+ Tolerance 1/min : + 5
guide steeve		†
travel mm Tolerance mm	: 1.53	+ rack travel mm : 4.00
Tolerance ma	: ← 0.20	Rated speed rpm : 1325
	055	+ Tolerance 1/min : + 15
Rated speed rpm	: 855	† mark #====1 0.70
guide sleeve		rack travel mm : 0.70
travel mm	: 5.56	+ Tolerance mm : ← 0.70

Rated speed rpm : 1400	Pressure hPa : 350 rack travel man : 11.10 Tolerance man : + 0.05
LOW IDLE	Pressure hPa : 850 rack travel mm : 13.00 Tolerance mm : + 0.15
control lever	
position degree : 65.0	
tolerance degree : +- 4.0	Start interlock
Setting point w/out bumper spring	Rated speed rpm :> 100 Rated speed rpm :< 240
Rated speed rpm : 250	Check
CRT mm min. :> 6.90	speed 1/min : > 80 Check
Testing:	speed 1/min : < 290
Rated speed rpm : 350	
rack travel mm : 6.00	FUEL DELIVERY CHARACTERISTICS
Tolerance and : + 0.10	
Rated speed rpm : 400	Amenoid pressure
1	hPa : 1500
	hPa : 1500 Rated speed rpm : 750 rack travel mma : 13.50 Tolerance mma : + 0.10
TORQUE CONTROL	rack travel mm : 13.50
Rated speed rpm : 1150	Tolerance mm : + 0.10
rack travel mm : 14.20	Del. quantity
Tolerance am : + 0.05	cm3/1000 strokes : 269.0 Tolerance
Rated speed rpm : 950	cm3/1000 strokes : + 2.0
rack travel mm : 14.00	Check tolerance
Tolerance mm : + 0.10	cm3/1000s. : +- 5.0
	Spreed
Rated speed rpm : 750 + rack travel mm : 13.50 +	Tolerance
rack travel mm : 13.50	cm3/1000 strokes : 8.0
Tolerance and : + 0.10	Check tolerance cm3/1000s. : 12.0
ANEROID/ALTITUDE	
COMPENSATOR TEST	Aneroid pressure
†	hPa : -
	Rated speed rpm : 500
SETTING	Del. quantity cm3/1000 strokes : 134.0
Rated speed rpm : 1150	Tolerance
Pressure hPa : 1500	cm3/1000 strokes : + 1.0
rack travel mm : 14.20	Check tolerance
Tolerance mm : ← 0.05	cm3/1000s. : +- 4.0
Rated speed rpm : 1150	
Pressure hPa : -	
rack travel mm : 10.50	STARTING FUEL DELIVERY
Tolerance mm : + 0.15	
+	Set starting CRT at K-cam.
MEASUREMENT +	
Rated speed rpm : 1150	Rated speed rpm : 100

:		13.50
:	+-	0.20
		150.0
•		150.0
:	+-	15.0
:	+-	19.0
	:	: +-

LOW IDLE

Rack travel in mm: 6.0 Tolerance mm: + 0.1 Del. quantity cm3/1000 strokes: 13.
Del. quantity
Tolerance cm3/1000 strokes : + 3.
Check tolerance cm3/1000s. : + 6.
Spreed
Tolerance cm3/1000 strokes : 4.
Check tolerance cm3/1000s. : 8.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 09.03.98 Test oil : ISO 4113

Combination No. : 0 402 776 817

Injection pump

Pump designation : PES6P130A720RS7318 EP type number : 0 412 736 807

Governor

Governer design. : RSV300...1200P0A581

60verner no. : 0 421 833 438

Cust. part No. :

Customer-spec. information

Customer : IVECO-AIFO : 8461 SRM 50

TEST BENCH REQUIREMENTS

Inlet line : 4-2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.05 Tolerance mm : ← 0.05

Check

tolerance mm : - 0.10

Rack travel in mm : 10.50
Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 10.45

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 316.0

Tolerance

cm3/1000 strokes : \leftarrow 1.5

Check tolerance

cm3/1000s. : +- 5.0

Spreed

Tolerance cm3/1000 strokes : 6.0 Check tolerance	Check tolerance cm3/1000S. : 10.0
cm3/1000s. : 10.0	CONTROL LEVER
Rated speed rpm : 300	control lever position degree : 106.0 tolerance degree : +- 4.0
Rack travel in mm: 5.30 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 20.0	RATED SPEED rack travel mm : 9.40 Rated speed rom : 1245
Tolerance : ± 3.0	Rated speed rpm : 1245 Tolerance 1/min : + 5
Check tolerance cm3/1000s. : + 7.0 + 5preed	rack travel mm : 4.00 Rated speed rpm : 1290 Tolerance 1/min : +- 15
Tolerance cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. : 14.0	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1440
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	control lever position degree : 72.0 tolerance degree : +- 4.0
control lever position degree : -3 Rated speed rpm : 800	Setting point w/out bumper spring
Rack travel in mm : 0.50 Tolerance mm : + 0.20	Rated speed rpm : 300 rack travel mm : 4.80 Tolerance mm : + 0.10
governor spring pre-tension	Testing:
click setting x : 4.50	Rated speed rpm : 300 rack travel mm : 5.30 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00
Rated speed rpm : 1200 Aneroid pressure	Rated speed rpm : 395 Tolerance 1/min : +- 30
hPa : 1000 + Del. quantity cm3/1000 strokes : 316.0 + Del. quantity	TORQUE CONTROL
Tolerance cm3/1000 strokes : + 1.5	Rated speed rpm : 1200 rack travel mm : 10.45
Check tolerance cm3/1000s. : + 5.0 Spreed	Tolerance mm : +- 0.05 Rated speed rpm : 550
Tolerance cm3/1000 strokes : 6.0	rack travel mm : 10.50 Tolerance mm : + 0.10
•	

Rated speed rpm	:	350
rack travel no	:	11.90
Tolerance mm	; +	- 0.30

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	•	1000
rack travel mm	:	10.45
Tolerance am	:	+ − 0.05

Rated speed rpm	:	500
Pressure hPa	:	•
rack travel mm	•	8.00
Tolerance mm	: +	- 0.10

MEASUREMENT

Rated	speed	rpm	:	5 0 0
-------	-------	-----	---	--------------

Pressure hPa	:	500
rack travel me	:	8.80
Tolerance mm	: +	- 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

And old provodio		
hPa	:	_
Rated speed rpm	:	500
Del. quantity		
cm3/1000 strokes		171.5
Tolerance		

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : + 5.0

STARTING FUEL DELIVERY

ESS test: With 24 V solenoid activated, rack must reach start position in max. control lever setting.

Rated speed rpm : 100

LOW IDLE

C17

Rated speed rpm :	300
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Rack travel in mm Tolerance mm	:	+-	5.30 0.10
Del. quantity cm3/1000 strokes	:		20.0
Tolerance cm3/1000 strokes	:	+-	3.0
Check tolerance cm3/1000s.	:	+-	7.0
Spreed Tolerance			
cm3/1000 strokes Check tolerance	:		10.0
cm3/1000s.	:		14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 06.03.98 : ISO 4113 Test oil

Combination No. : 0 402 946 010

Injection pump

Pump designation : PES6P120A320RS8028

EP type number : 0 412 926 021

Governor

Governor design. : RQV275...1175PA1101K

Governer no. : 0 421 815 982

Cust. part No. : CCEP 5133 A 66-193

Customer-spec. information

Customer : RENAULT V.I. : MIDR 060226 M51 Motor

Power KW : 158.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : **←** 2.0

Overflow valve : 2 417 413 078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

2**08.**5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.00 Tolerance mm : ← 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 13.00 Tolerance mm : ← 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

*NW after s.o.d. : -0.15 : +- 0.50 Tolerance

Check

: +- 0.75 tolerance *NW

Barrel no. : 1

Beginning of delivery differende

betw. rack trav.

21.00

and maximum rack

12.30 travel Difference * CS : 2.00

CRT ZERO POSITION

Rack travel in ma Tolerance man	: 13.70 : + 0.05
BASIC SETTING	
Rated speed rpm	: 1175
Del. quantity cm3/1000 strokes	: 268.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000S.	: + 4.0
Spreed	
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000S.	: 9.0
Rated speed rpm	
Rack travel in ma Tolerance mm	: -7.30 : ← 0.10
Del. quantity cm3/1000 strokes Tolerance	: 42.0
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000S. Spreed	: ← 6.0
Tolerance cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP
GUIDE SLEEVE TRAV	EL
Rated speed rpm guide sleeve	: 1230
travel mma Tolerance mma	: 8.95 : ← 0.10
Rated speed rpm guide sleeve	: 275
travel ma	: 1.01

Tolerance mm	: +- 0.10
Rated speed rpm	: 877
guide sleeve travel man	: 6.51
Tolerance mm	: + 0.20
Rated speed rpm	: 389
guide sleeve	. 270
travel mm Tolerance mm	: 2.39 : ← 0.20
Rated speed rpm	: 439
guide sleeve travel mm	: 3.01
Tolerance mm	: 3.01 : + 0.20
D.4	
Rated speed rpm guide sleeve	: 550
travel mm	: 3.92
Tolerance mm	: 3.92 : + 0.20
Rated speed rpm	: 1650
guide sleeve	
travel mm	: 13.50
Tolerance mm	: +- 0.50
GUIDE SLEEVE POS	ITION
control lever	
position degree	: - 1

position degree Rated speed rpm	: - 1 : 1430
Rack travel in man	: 11.20
Tolerance man	: ← 2.00

FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm	: 1175
Aneroid pressure	
hPa	: 1600
Del. quantity	
cm3/1000 strokes	: 268.0
Tolorance	
cm3/1000 strokes	: + 1.0
Check tolerance	
cm3/1000S.	: +- 4.0
Spreed	
Tolerance	
cm3/1000 strokes	: 5.0
Check tolerance	
cm3/1000S.	: 9.0

CONTROL LEVER

control lever	
position degree tolerance degree	
RATED SPEED rack travel mm	: -1.00
Rated speed rpm	: 1240
Tolerance 1/min	: + 15
rack travel ma Rated speed rpm	: -9.70
Tolerance 1/min	: + 5
rack travel mm	: -13.20
rack travel mm Tolerance mm Rated speed rpm	: + 0.55 • 1550
LOW IDLE	
control lever	
position degree	: 245.0
tolerance degree	
Setting point w/o	ut bumper spring
Rated speed rpm	: 200
CRT mm min.	: < -6.70
Testing:	
Rated speed rpm	
rack travel mm	: −7.30 : ← 0.10
Tolerance mm	
Rated speed rpm	: 400
TORQUE CONTROL	
Rated speed rpm	: 1175
Rated speed rpm	: 650
rack travel mm Tolerance mm	: −1.55 : ← 0.10
Rated speed rpm rack travel mm	: 350 · _2.80
Tolerance mm	: -2.00 : + 0.25
ANEROID/ALTITUDE	
COMPENSATOR TEST	

SETTING

c20

Rated speed rpm Pressure hPa	: 1175 : 1600		
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	500 -5.40 - 0.20		
MEASUREMENT			
Rated speed rpm	: 1175		
Pressure hPa rack travel mm Tolerance mm	: 320 : −4.70 : ← 0.20		
Pressure hPa rack travel mm Tolerance mm	: 560 : -2.95 : +- 0.05		
Start interlock			
Rated speed rpm Rated speed rpm	: > 175 : < 249		
Check speed 1/min Check	: > 155		
speed 1/min	: < 260		
FUEL DELIVERY CHARACTERISTICS			
Aneroid pressure	: 1600		
Rated speed rpm Del. quantity			
cm3/1000 strokes	: 260.0		

STARTING FUEL DELIVERY

Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 95.0 Tolerance cm3/1000 strokes : + 10.0

Check tolerance cm3/1000s. : **←** 14.0

LOW IDLE

Rated speed rpm : 275

Rack travel in mm: -7.30 : + 0.10 Tolerance mm Del. quantity

cm3/1000 strokes : 42.0 Tolerance

cm3/1000 strokes : + 2.0

Check tolerance cm3/1000s. : + 6.0 Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 10.03.98 Test oil : ISO 4113

Combination No. : 0 402 946 030

Injection pump

Pump designation : PES6P12DA72DRS8049

EP type number : 0 412 926 031

6overnor

Governer design. : RQ750PA1799 Governer no. : 0 421 801 810

Cust. pert No. : 1397781

Customer—spec. information Customer : SCANIA Motor : DSC1158A

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 90 Tolerance L/h : + 20.0

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : + 0.05
Check

to lon

tolerance mm : + 0.10

Rack travel in man: 14.50 Tolerance man: +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

Start of delivery blocking

Tolerance : \leftarrow 0.10

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700

		Check tolerance	
	+	cm3/1000s.	: 12.0
Rack travel in man			
Tolerance mm	: ← 0.05 +		
	†		
Del. quantity	+	CONTROL LEVER	
cm3/1000 strokes	: 363.0 +		
	+	control lever	
Tolerance	+	position degree	
cm3/1000 strokes	: ← 1.0 +	tolerance degree	: - 4.0
Check tolerance	+	control lever	
cm3/1000s.	: ← 11.0 +	position degree	: 83.0
	<u> </u>	tolerance degree	: +- 4.0
Spreed	+	_	
·	+		
Tolerance	· +	ASSEMBLY GOVERNOR	SETTING
cm3/1000 strokes	: 8.0		
	+	Rated speed rpm	: 750
Check tolerance		rack travel mm	
cm3/1000s.	: 12.0	•	
···	1	Rated speed rpm	: 778
		Tolerance 1/min	
	1	rack travel mm	: 4.00
	1		
Rack travel in man	: 3.00	rack travel mm	: 0.50
Tolerance mm	: + 0.20	Tolerance mm	: - 0.50
Del. quantity	1	Rated speed rpm	: 850
cm3/1000 strokes	: 30.0		
Tolerance	1		
cm3/1000 strokes	: ← 4.0	Rated speed rpm	: 751
Check tolerance	1	rack travel mm	
cm3/1000s.	: + 6.0		
Spreed	1	Rated speed rpm	: 779
Tolerance	<u> </u>	Tolerance 1/min	
cm3/1000 strokes	: 5.0	rack travel mm	
Check tolerance	+		
cm3/1000s.	: 9.0	rack travel mm	: 0.50
	+	Tolerance mm	: ← 0.50
	+	Rated speed rpm	: 850
(B) SETTING OF IN	JECTION PUMP		
WITH GOVERNOR			
	1	Rated speed rpm	: 752
	1	rack travel mm	
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	Rated speed rpm	: 780
	+	Tolerance 1/min	
Rated speed rpm	: 700	rack travel mm	: 4.00
Aneroid pressure	+		
hPa	: 1500	rack travel mm	: 0.50
Del. quantity		Tolerance mm	: ← 0.50
cm3/1000 strokes	: 363.0	Rated speed rpm	
Tolerance	1	• • • •	
cm3/1000 strokes	: ← 1.0 ∔		
Check tolerance	1	Rated speed rpm	: 753
cm3/1000s.	: ← 11.0 +	rack travel mm	
Spreed	1	-	
Tolerance	1	Rated speed rpm	: 781
cm3/1000 strokes	: 8.0	Tolerance 1/min	: 4
	1	rack travel mm	: 4.00
	•		

rack travel 🗪	:	0.50
Tolerance mm	: +-	0.50
Rated speed rpm	:	850

Rated speed	LDW	:	754
rack travel		:	12.10

Rated speed rpm Tolerance 1/min	: +-	78 3
rack travel ma	:	4.00

TORQUE CONTROL

Rated speed rpm	:	700
rack travel ma	:	13,15
Tolerance mm	: +	- 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	15 00
rack travel mm	:	13.15
Tolerance mm	: 4	-0.05

Rated speed rpm	:	500
Pressure hPa	:	-
rack travel mm	:	7.70
Tolerance am	: +	- 0.20

MEASUREMENT

Rated	speed	m	:	500
-------	-------	----------	---	-----

Pressure hPa	:	230
rack travel mm	:	8.45
Tolerance mo	. +	- 0.25

Pressure hPa : 580 rack travel mm : 10.45 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa	:	-
Rated speed rpm	:	500
Not minutity		

Del. quantity

cm3/1000 strokes : 230.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 7.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 04.03.98 Test oil : ISO 4113

Combination No. : 0 403 466 151AA

Injection pump

Pump designation : PES6MW100/120RS1238

EP type number : 0 413 406 237

Governor

Governer design. : RSV450 ...1100MWZA367

Governer no. : 0 420 085 250

Cust. part No. : 3284205

Customer—spec. information Customer : CDC Motor : 6 CT Power KW : 138.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.80
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerence mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-50-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 8.00 Tolerance : + 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Barrel no. : 1

Beginning of delivery differende

and maximum rack

travel : 15.00 Difference ° CS : 2.00

+	
BASIC SETTING	FULL LOAD DELIVERY AT FULL LOAD STOP
Rated speed rpm : 1050	Rated speed rpm : 1050 Aneroid pressure
Rack travel in mm : 11.10 + Tolerance mm : + 0.10 +	hPa : 1200 Del. quantity cm3/1009 strokes : 130.0
Del. quantity	Tolerance cm3/1000 strokes : + 1.0
Cm3/1000 strokes : 130.0	Check tolerance cm3/1000S. : +- 4.0 Spreed
cm3/1000 strokes : + 1.0	Tolerance cm3/1000 strokes : 4.0
Check tolerance cm3/1000s. : ← 4.0	Check tolerance cm3/1000s. : 7.5
Spreed	
Tolerance cm3/1000 strokes : 4.0	CONTROL LEVER control lever
Check tolerance	position degree : 94.0
cm3/1000s. : 7.5	tolerance degree : +- 4.0
+	RATED SPEED
+	rack travel mm : 10.10
Rated speed rpm : 450	Rated speed rpm : 1090 Tolerance 1/min : +- 5
Rack travel in mm: 5.15	
Tolerance mm : + 0.05	rack travel mm : 6.40
Del. quantity	Rated speed rpm : 1175
cm3/1000 strokes : 25.5	Tolerance 1/min : +- 15
cm3/1000 strokes : + 1.5	rack travel mm: : 1.00
Check tolerance	Tolerance mm : + 0.70
cm3/1000s. : + 4.5 + 5	Rated speed rpm : 1350
Tolerance 7.5	rack travel mm : 6.40
cm3/1000 strokes : 3.5 + Check tolerance +	Rated speed rpm : 1175 Tolerance 1/min : +- 15
cm3/1000s. : 5.5	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LGW IDLE
‡	
	control lever
GUIDE SLEEVE POSITION	position degree : 78.0 tolerance degree : +- 4.0
control lever	Control lever difference
position degree : -3	Grad : 16.0 tolerance degree : +- 4.0
governor spring pre-tension	Setting point w/out bumper spring
click setting x : 3.00 +	

Rated speed rpm	: 450	→ Check tolerance
rack travel am		+ cm3/1000s. : +- 5.0
Tolerance ma		Spreed
10(0.0100	0.05	Tolerance
Tookings		cm3/1000 strokes : 6.0
Testing:		
		+ Check tolerance
Rated speed rpm	: 450	+ cm3/1000s. : 9.0
rack travel mm		+
Tolerance Ma	: ← 0.05	
		rack travel mm : 11.15
		- Tolerance mm : + 0.20
TORQUE CONTROL		1
· · · · · ·	: 1050	
Rated speed rpm		T annual
rack travel mm		Aneroid pressure
Tolerance ma	: +- 0.10	+ hPa : -
		Rated speed rpm : 500
Rated speed rpm	: 750 : 11.35	+ Del. quantity
rack travel man	: 11.35	+ cm3/1000 strokes : 121.0
Tolerance mm	: + 0.10	Tolerance
toter Biter was	0.10	cm3/1000 strokes : + 1.0
	4000	
Rated speed rpm	: 1000	theck tolerance
rack travel am		+ cm3/1000s. : $+$ 3.0
Tolerance mm	: ← 0.20	+
		+
		
ANEROID/ALTITUDE		+ STARTING FUEL DELIVERY
COMPENSATOR TEST		+
		Rated speed rpm : 160
		rack travel mm : 20.50
CETTALC		Tolerance mm : + 1.00
SETTING		
		+ Del. quantity
Rated speed rom		+ cm3/1000 strokes : 177.0
Pressure hPa	: 1200	+ Tolerance
		+ cm3/1000 strokes : + 10.0
Rated speed rpm	: 500	- Check tolerance
Pressure hPa	• 500	+ cm3/1000s. : + 13.0
	40.50	. T CMS/ 10003.
rack travel and	: 10.50	Ť
Tolerance ma	: ← 0.20	†
MEACH IDEMENT		<u> </u>
MEASUREMENT		LOW IDLE
Batad aread	. 500	I COM TACE
Rated speed rom	.)00	T Dated around any . (50
_	. PPA	Rated speed rpm : 450
Pressure hPa	: 550	†
rack travel man	: 10.90	Rack travel in mm : 5.15
Tolerance ma	: ← 0.20	→ Tolerance mm : ← 0.05
		→ Del. quantity
		Del. quantity
		+ cm3/1000 strokes : 25.5
	ADA OFFICIA DO	- cm3/1000 strokes : 25.5 Tolerance
FUEL DELIVERY CHA	ARACTERISTICS	- cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5
FUEL DELIVERY CHA	ARACTERISTICS	- cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance
FUEL DELIVERY CHA	ARACTERISTICS	- cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5
-		- cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5
Aneroid pressure		cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Spreed
Aneroid pressure	: 1200	cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance
Aneroid pressure hPa Rated speed rpm	: 1200	cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1200 : 750	- cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance
Aneroid pressure hPa Rated speed rpm	: 1200 : 750	cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1200 : 750	- cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1200 : 750 : 140.0	- cm3/1000 strokes : 25.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

Test oil

: V1

Combination No. : 0 402 746 608FR

Injection pump

Pump designation: 0412726925

EP type number : 0 412 726 925

Governor

Governer design. : PES6P12DA32DRS7359

Governer no. : 0 421 801 805

Cust. part No. : RENAULT V.I.

Customer-spec. information

Motor

: CCEP 5157A 66-

Power KW

: LKW/BU

TEST BENCH REQUIREMENTS

Inlet line

: 250

Test oil inlet

temp. °C

: ISO 41

Tolerance °C

: 40.0

Inlet press. bar : + 2.0

Overflow quantity

min. l/h : 6.0 Tolerance l/h : 220

Test nozzle holde

assembly

: B K

Opening pressure

: 16889011

Tolerance bar

: 20850

Outside diameter : 2.0

x inside diameter: + 150

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 2600

Tolerance bar : ← 10

Prestroke mm

4.70

Tolerance mm

: + 0.05

Check

tolerance mm

: **←**0.10

Firing order

: 1-5-3-6-2-

: 4

BASIC SETTING

: **←** 0.1 Tolerance mm

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE TRAVEL

Rated speed rpm : 275

quide sleeve

: 2.44 travel mm

: **←** 0.2 Tolerance mm

LOW IDLE

Testing:

Rated speed rpm : 275

Tolerance mm

: **←** 0.1

LOW IDLE

Tolerance mm : + 0.1

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 12.03.98 Test oil : ISO 4113

Combination No. : F 000 409 212

Injection pump

Pump designation : PES6A95D410RS2923 EF type number : F 000 400 401

Governor

Governer design. : RQV300...1300AB1326L

6overner no. : F 000 420 302

Cust. part No. : A 028 074 51 02

Customer spec. information

Customer : MSB_

Motor : OM 366LA/EuroI

Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.20 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 19.00 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1500

Rack travel in mm : 13.45
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 97.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance cm3/1000 strokes	: 3.5
Check tolerance cm3/1000s.	: 8.0
Rated speed rpm	: 300
Saal Assess Saas	
Rack travel in mm Tolerance mm	•: 6.60 : ← 0.10
Del. quantity	3310
cm3/1000 strokes	: 13.0
Tolerance cm3/1000 strokes	: +- 2.0
Check tolerance	
cm3/1000s.	: ← 4.5
Spreed Tolerance	
cm3/1000 strokes	: 5.5
Check toleranse	
cm3/1000s.	: 9.0
GUIDE SLEEVE TRAN	/EL
Rated speed rpm	: 1500
guide sleeve travel mm	: 9.70
Tolerance mm	: ← 0.05
Data d amand aum	. 700
Rated speed rpm guide sleeve	: 300
travel mm	: 1.30
Tolerance ma	: + 0.25
Rated speed rpm	: 500
guide sleeve	. 2.00
travel mm Tolerance mm	: 2.90 : ← 0.25
Rated speed rpm	: 750
guide sleeve travel mm	: 4.80
Tolerance mm	: + 0.10
GUIDE SLEEVE POST	ITION
control lever position degree Rated speed rpm	: - 1 : 1366

Rack travel in mm: 16.50

Tolerance mm	: + 1.50
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm Aneroid pressure	: 1300
hPa	: 900
Del. quantity cm3/1000 strokes	: 97.0
Tolerance cm3/1000 strokes	: ← 1.0
Check tolerance cm3/1000s.	: ← 3.0
Spreed Tolerance	
cm3/1000 strokes Check tolerance	: 3.5
cm3/1000s.	: 8.0
CONTROL LEVER	
control lever	447.0
position degree tolerance degree	: 113.0 : + 4.0
RATED SPEED	42.50
rack travel mm Rated speed rpm	: 12.50 : 1345
Tolerance 1/min	: +- 5
rack travel mm Rated speed rpm	: 4. 0 0 : 1520
Tolerance 1/min	: + 15
rack travel mm	: 0.50 : ← 0.50
Tolerance mm Rated speed rpm	: 1640
LOW IDLE	
control lever	: 73.0
position degree tolerance degree	: ← 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 100
CRT mm min.	: > 9.00
Testing:	
Rated speed rpm	: 300

rack travel am Tolerance am	: 6.60 : + 0.10
Rated speed rpm	: 355
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 750 : 13.45 : ← 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 13.50 : ← 0.05
Rated speed rpm Pressure hPa	: 500 : -
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 270 : 1.20 : ← 0.10
Pressure hPa rack travel mm Tolerance mm	: 510 : 2.80 : + 0.10
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 210
Check speed 1/min Check	: > 80
speed 1/min FUEL DELIVERY CHA	: < 230 ARACTERISTICS
Aneroid pressure	
hPa Rated speed rpm	: - : 500

D05

Del. quantity		
cm3/1000 strokes	:	54.0
Tolerance		
cm3/1000 strokes	: +-	1.0
Check tolerance		
cm3/1000s.	: +-	3.0
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	8.0

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm Tolerance mm	:		100 14.20 0.10
Del. quantity cm3/1000 strokes Tolerance	:		108.0
cm3/1000 strokes Check tolerance	•	+	7.5
cm3/1000s.	:	+-	10.0

LOW IDLE

Rated speed rpm	:	300
Rack travel in man Tolerance man Del. quantity	: +	
cm3/1000 strokes	:	13.0
Tolerance cm3/1000 strokes Check tolerance	: +	- 2.0
cm3/1000s.	: +	- 4.5
Tolerance cm3/100C strokes	:	5.5
Check tolerance cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 13.03.98 Test oil : ISO 4113

Combination No. : 0 400 836 018

Injection pump

Pump designation : PES6A80D410/3RS2527

EP type number : 0 410 886 059

Governor

Governer design. : RQ275/1400AB798DL Governor no. : 0 420 202 239

Cust. part No. :

Customer—spec. information Customer : KHD Motor : F6L912 Power KW : 88.3

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 1.95
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 11.65
Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 65.5

Tolerance cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

Spreed

Tolerance ca3/1000 strokes	: 3.5	ł
Check tolerance cm3/1000s.	: 7.0	Ī
		ł
Rated speed rpm	: 275	ł
	•	ł
Rack travel in ma Tolerance ma Del. quantity	: 8.70 : ← 0.05	t
cm3/1000 strokes Tolerance	: 12.0	I
cm3/1000 strokes	: +- 1.5	ļ
Check tolerance cm3/1000s.	: +- 3.5	t
Spreed Tolerance		Į
cm3/1000 strokes	: 4.0	ł
Check tolerance cm3/1000s.	: 6.0	ŧ
GUIDE SLEEVE POSI	TION	† †
control lever		t
position degree Rated speed rpm	: - 1 : 650	+
Rack travel in mm Tolerance mm	: 16.00 : ← 0.40	1
SHI LOAD DELTVER	Y AT FULL LOAD STOP	I
		+
Rated speed rpm Aneroid pressure	: 1400	t
hPa Del. quantity	: -	1
cm3/1000 strokes Tolerance	: 65.5	t
cm3/1000 strokes Check tolerance	: +- 1.0	1
cm3/1000s. Spreed	: +- 3.0	-
Tolerance	. 75	+
cm3/1000 strokes Check tolerance	: 3.5	Ŧ
cm3/1000s.	: 7.0	t
		ļ

rack travel mma Rated speed rpma Tolerance 1/min	: 10.60 : 1453 : ← 8
rack travel mm Rated speed rpm Tolerance 1/min	: 1550
rack travel mm Tolerance mm Rated speed rpm	: +- 0.50
LOW IDLE	
Setting point w/d	out bumper spring
Rated speed rpm	: 100
CRT mm min.	: > 7.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 275 : 8.70 : ← 0.05
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 450 : + 20
Rated speed rpm	: 600
CRT mm max.	: < 1.00
TORQUE CONTROL	
Dimension a mm Rated speed rpm rack travel mm Tolerance mm	: 0.65 : 1400 : 11.65 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 650 : 13.10 : ← 0.10
Rated speed rpm rack travel man Tolerance man	: 810 : 12.70 : ← 0.10
Rated speed rom rack travel man Tolerance man	: 1015 : 12.05 : + 0.15

FUEL DELIVERY CHARACTERISTICS

rack travel mm : 12.70 Tolerance mm : ← 0.10

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 17.70
Tolerance mm : + 0.30
Del. quantity
cm3/1000 strokes : 100.0
Tolerance
cm3/1000 strokes : + 7.5

Check tolerance cn3/1000s. : \leftarrow 10.0

LOW IDLE

Rated speed rpm : 275

Rack travel in mm: 8.70 : **←** 0.05 Tolerance mm Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : **←** 3.5 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 6.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 13.03.98 Test oil : ISO 4113

Combination No. : 0 400 836 045

Injection pump

Pump designation : PES6A95D410/3RS2907

EP type number : 0 410 895 884

Governor

Governer design. : RQV750AB1004L Governer no. : 0 420 212 093

Cust. part No. : 0423 2212 KY

Customer—spec. information Customer : KHD-DMI

Motor : BF6L913

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : 4 1.0

Prestroke mm : 3.00
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : → 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rom : 750

Rack travel in mm : 11.35

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 69.0

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance

cm3/1000s. : +- 2.0

Spreed

Tolerance

cm3/1000 strokes : 2.5

D09

		+ Rated speed rpm	: 800
Check tolerance cm3/1000s.	: 4.5	Rack travel in mm	
Rated speed rpm	: 250	FULL LOAD DELIVER	Y AT FULL LOA
Rack travel in man		Rated speed rpm	: 750
Tolerance mm	: ← 0.10	+ Aneroid pressure	
Del. quantity cm3/1000 strokes	• 11 5	hPa Del. quantity	: -
Tolerance		cm3/1000 strokes	: 69.0
cm3/1000 strokes	: ← 3.0	Tolerance cm3/1000 strokes	05
Check tolerance cm3/1000s.	: +- 5.0	- Check tolerance	: ← 0.5
Spreed		- cm3/1000s.	: 2.0
Tolerance cm3/1000 strokes	: 2.5	+ Spreed + Tolerance	
Check tolerance	. 6.7	cm3/1000 strokes	: 2.5
cm3/1000s.	: 4.5	+ Check tolerance	
		t cm3/1000s.	: 4.5
(B) SETTING OF IN	JECTION PUMP	+	
WITH GOVERNOR		CONTROL LEVER	
		- +	
GUIDE SLEEVE TRAV	EL	+ control lever + position degree	. 88.0
Rated speed rpm	: 752	+ tolerance degree	
guide sleeve		+	
travel mm	: 3.49	+	
Tolerance mm	: ← 0.15	ASSEMBLY GOVERNOR	E SETTING
Rated speed rpm	: 530	Rated speed rpm	
guide sleeve		+ rack travel mm	: 10.35
travel mm	: -6.78	+	
Tolerance mm	: ← 0.25	+ Rated speed rpm	
0.4.44	. 990	+ Tolerance 1/min	
Rated speed rpm guide sleeve	: 880	rack travel mm	: 4.00
travel mm	: 17.75	rack travel mon	: 0.50
Toterance mm	÷ 0.25	+ Tolerance mm	
to for an idea into		+ Rated speed rpm	
Rated speed rpm	: 823	+	
guide sleeve		+	
travel mm	: 10.00	+ Rated speed rpm	: 768
Tolerance mm	: ← 0.25	+ rack travel mm	: 10.35
Rated speed rpm	: 880	Rated speed rpm	: 796
guide sleeve		+ Tolerance 1/min	: +- 5
travel mm	: 11.50	rack travel mm	: 4.00
Tolerance ma	: ← 0.50	+	
		+ rack travel mm	: 0.50
GUIDE SLEEVE POSI	TION	- Tolerance mm	: + 0.50
		+	
		+ Rated speed rpm	
control lever position degree	: -1	rack travel mm	: 10.35

FULL LOAD STOP

Rated speed rpm	: 797
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mme	: +- 0.50
Rated speed rpm rack travel mm	
Rated speed rpm	: 798
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 771
rack travel mm	: 10.35
Rated speed rpm	: 799
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: + 0.50
Rated speed rpm rack travel mm	: 10.35
Rated speed rpm	: 800
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm	: 0.50
Tolerance mm	: +- 0.50
LOW IDLE	
Testing:	
Rated speed rpm rack travel mm Tolerance mm	
TORQUE CONTROL Rated speed rom rack travel mms Tolerance mms	: 750 : 11.35 : + 0.05
Start interlock	400
Rated speed rpm	: > 100

Check	_		20	
speed 1/min	:	>	80	
STARTING FUEL DELI		-RY		
			400	
Rated speed rpm rack travel mm	:		100 20.25	
Tolerance mm	:	+	0.75	
Del. quantity				
cm3/1000 strokes	:		125.0	
Tolerance cm3/1000 strokas			7.5	
ams/lugu strakes Check tolerance	•	+-	7.3	
cm3/1000s.	:	+-	10.0	
LOW IDLE				
	:		250	
LOW IDLE Rated speed rpm Rack travel in man	:		8.50	
Rated speed rpm Rack travel in man Tolerance man		+		
Rated speed rpm Rack travel in man Tolerance man Del. quantity	:	+-	8.50 0.10	
Rated speed rpm Rack travel in man Tolerance man Del. quantity cm3/1000 strokes	:	+-	8.50	
Rated speed rpm Rack travel in man Tolerance man Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	:	+ +	8.50 0.10	
Rated speed rpm Rack travel in man Tolerance man Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	••••	+	8.50 0.10 11.5 3.0	
Rated speed rpm Rack travel in man Tolerance man Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	•	+-	8.50 0.10 11.5	
Rated speed rpm Rack travel in man Tolerance man Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	••••	+ +	8.50 0.10 11.5 3.0 5.0	
Rated speed rpm Rack travel in man Tolerance man Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	••••	+-	8.50 0.10 11.5 3.0	
Rated speed rpm Rack travel in man Tolerance man Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	• • • • • • • • • • • • • • • • • • • •	+ + +	8.50 0.10 11.5 3.0 5.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 13.03.70 : ISO 4113 Test oil

Combination No. : 0 400 836 046

Injection pump

Pump designation : PES6A95D410/3RS2907

EP type number : 0 410 896 884

Governor

Governer design. : RQ300/1250AB935-2L

Governer no. : 0 420 200 107

Cust. part No. : 0423 2162 KY

Customer-spec. information Customer : KHD-DMI : F6L913-NEW Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

: 40 temp. °C : + 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length ma : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.00 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : ← 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.35 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 76.0

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

: +- 2.0 cm3/1000s.

Spreed

+	Tolerance mm
Tolerance + cm3/1000 strokes : 2.5 +	Rated speed rpm
<u> </u>	guide sleeve
Check tolerance	travel mm
cm3/1000s. : 4.0	Tolerance mm
+	Rated speed rpm
+	guide sleeve
Rated speed rpm : 325	travel mm Tolerance mm
Rack travel in mm: 8.50	
Tolerance mm : + 0.10	
Del. quantity	GUIDE SLEEVE POSIT
cm3/1000 strokes : 11.5	
Tolerance	
cm3/1000 strokes : + 1.5	control levèr
Check tolerance + 3.5 + 3.5	position degree Rated speed rom
Spreed	rated speed (pin
Tolerance	Rack travel in mm
cm3/1000 strokes : 4.0	Tolerance mm
Check tolerance	
cm3/1000s. : 6.0 +	
+	FULL LOAD DELIVERY
(B) SETTING OF INJECTION PUMP	Rated speed rpm
WITH GOVERNOR	Aneroid pressure
42111 004611/1011	hPa
	Del. quantity
GUIDE SLEEVE TRAVEL	cm3/1000 strokes
+	Tolerance
Rated speed rpm : 1307	cm3/1000 strokes
guide sleeve	Check tolerance
travel mm : 6.75 + Tolerance mm : + 0.15 +	cm3/1000s.
Tolerance mm : \leftarrow 0.15	Spr ee d Tolerance
Rated speed rpm : 300	cm3/1000 strokes
guide sleeve	Check tolerance
travel mm : 1.26 +	cm3/1000s.
Tolerance mm : + 0.20	
t †	
Rated speed rpm : 1250	RATED SPEED
guide sleeve	rack travel mm
Tolerance mm : 6.40	Rated speed rpm Tolerance 1/min
Toterance ma : - 0.10	Toterance (/min
Rated speed rpm : 950	rack travel mm
guide steeve	Rated speed rpm
travel mm : 6.10	Tolerance 1/min
Tolerance mm : + 0.10	
	rack travel mm
Rated speed rpm : 617	Tolerance mm
guide sleeve	Rated speed rpm
travel am : 4.68	
Tolerance mm : + 0.10	
Rated speed rpm : 740	·
guide sleeve	LOW IDLE
travel mm : 6.00	

: 11.50 : ← 0.50 : 1056 : 6.30 : + 0.10 TION : 109 : **800** : 20.00 : + 0.80 Y AT FULL LOAD STOP : 1250 : 76.0 : **←** 0.5 : ← 2.0 : 2.5 : 4.0 : 10.30 : 1303 : ← 8 4.00 : 1380 : 0.50 : ← 0.50 : 1500

: + 0.10

: 1480

Setting point w/out bumper spring

Rated speed rpm : 200

CRT am min. : > 9.00

Testing:

Rated speed rpm : 325 rack travel mm : 8.50 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 635
Tolerance 1/min : + 20

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 11.35 Tolerance mm : ← 0.05

Rated speed rpm : 750 rack travel mm : 11.65 Tolerance mm : + 0.05

Start interlock

Rated speed rpm : > 100 Rated speed rpm : < 220

Check

speed 1/min :> 80 Check speed 1/min : < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 750 Del. quantity

cm3/1000 strokes : 70.0

Tolerance

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : \leftarrow 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 1.00

Del. quantity

cm3/1000 strokes : 125.0

Tolerance

cm3/1000 strokes : +- 7.5

Check tolerance

cm3/1000s. : +- 10.0

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 8.50
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 11.5
Tolerance

cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 3.5

Spreed Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. : 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 14.03.98 Test oil : ISO 4113

Combination No. : 0 400 865 019

Injection pump

Pump designation : PES5A800410/3RS2526

EP type number : 0 410 885 004

Governor

Governer design. : RSV325...1150A8C604

: -1L

: 0 420 232 573 Governer no.

Cust. part No. :

Customer-spec. information Customer : KHD : F5L912 Motor Power KW : 62.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

40 temo. °C Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 har Tolerance bar : ← 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 1.95 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance m_1 : \leftarrow 1.50

Firing order : 1-3-5-4-2

Phasing : 0-72-144-216-288

Tolerance : **←** 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1130

Rack travel in mm: 12.65 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 65.5

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : + 2.0

Spreed

Tolerance

cm3/1000 strokes : 2.5

D15

Check tolerance cm3/1000s. : 4.0	- CONTROL LEVER
	control lever
	position degree : 104.0
Rated speed rpm : 325	tolerance degree : +- 4.0
Rack travel in mm: 9.00	RATED SPEED
Tolerance mm : ← 0.10	rack travel mm : 11.60
Del. quantity	- Rated speed rpm : 1175
cm3/1000 strokes : 12.0	Tolerance 1/min : + 5
Tolerance	
cm3/1000 strokes : + 3.0	rack travel mm : 4.00
Check tolerance	- Rated speed rpm : 1230
cm3/1000s. : + 4.5	Tolerance 1/min : + 15
Spreed	
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 2.0	Tolerance mm : +- 0.55
Check tolerance	Rated speed rpm : 1350
cm3/1000s. : 3.0	
1	rack travel mm : 4.00
	Rated speed rpm : 1235
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	LOW IDLE
control lever	control lever
position degree : -3	position degree : 69.0
Rated speed rom : 300	- tolerance degree : +- 4.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Setting point w/out bumper spring
	- Rated speed rpm : 325
governor spring	rack travel mm : 8.50
pre-tension	Tolerance mm : +- 0.10
click setting x : 4.50	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. :> 19.50
Rated speed rpm : 1130 -	. Tarting:
Take to the same t	- Testing:
Aneroid pressure	- Rated speed rpm : 325
hPa : -	- Rated speed rpm : 325 - rack travel mm : 9.00
Del. quantity - cm3/1000 strokes : 65.5	- Tolerance mm : +- 0.10
Tolerance	
cm3/1000 strokes : + 0.5	rack travel mm : 2.00
Check tolerance	- Rated speed rpm : 500
cm3/1000s. : + 2.0	Tolerance 1/min : +- 30
Spreed	Local district 17 milities
Tolerance	
cm3/1000 strokes : 2.5	TORQUE CONTROL
Check tolerance	. 011406
cm3/1000s. : 4.0	Dimension a mm : 0.70
T. T	Rated speed rpm : 1130

rack travel mm : 12.65 : +- 0.05 Toterance am

Rated speed rpm : 500 rack travel mm : 13.35
Tolerance mm : + 0.05

Rated speed rpm : 910 rack travel mm : 13.00 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

mack travel mm : 13.00 Tolerance mn: \leftarrow 0.10

LOW IDLE

Rated speed rpm : 325

Rack travel in mm: 9.00 Tolerance m: \leftarrow 0.10 Del. quantity

cm3/1000 strokes : 12.0

Tolerance

cm3/1000 strokes : + 3.0 Check tolerance : +- 4.5

cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 2.0

Check tolerance

: 3.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 16.03.98 Test oil : ISO 4113

Combination No. : 0 400 866 069

Injection pump

Pump designation : PES6A900320/3RS2464

EP type number : 0 410 896 029

Governor

Governer design. : RSV300...1000A7C529R

Governer no. : 0 420 233 191

Cust. part No.

Customer-spec. information

Customer : MWM

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 922 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009_

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600 REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.20
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 980

Rack travel in mm : 10.30 Tolerance mm : - 0.05

Del. quantity

cm3/1000 strokes : 68.0

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s. : + 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

• • •

	t
Check tolerance cm3/1000s. : 4.5	control lever
. 4.5	position degree : 65.0
	tolerance degree : + 4.0
Rated speed rpm : 300	+ RATED SPEED
	+ rack travel mm : 9.30
Rack travel in mm: 7.50	Rated speed rpm : 1025
Tolerance mm : + 0.10	† Tolerance 1/min : + 5
Del. quantity	+
cm3/1000 strokes : 10.0	+ rack travel mm : 4.00
Tolerance	Rated speed rpm : 1055
cm3/1000 strokes : +- 2.0	Tolerance 1/min : + 15
Check tolerance cm3/1000S. : +- 4.0	rack travel mm : 1.00
Spreed	Tolerance mm : + 0.70
Tolerance	Rated speed rpm : 1200
cm2/1000 strokes : 4.5	
Check tolerance	→ rack travel mm : 4.00
cm3/1000s. : 6.0	+
	+
(B) SETTING OF INJECTION PUMP	İ
WITH GOVERNOR	LOW IDLE
	†
	- control lever
GUIDE SLEEVE POSITION	position degree : 28.0
ONLY OFFICE LOOISING	tolerance degree : +- 4.0
	+
control lever	+ Setting point w/out bumper spring
position degree : - 3	T
Rated speed rpm : 800	+ Rated speed rpm : 300
D. J. January 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	rack travel mm : 8.00
Rack travel in mm: 0.65	+ Tolerance mm : + 0.10
Tolerance nam : + 0.35	Rated speed rpm : 100
	+
FULL LOAD DELIVERY AT FULL LOAD STOP	+ CRT mm min. : > 19.50
Rated speed rpm : 980	Testing:
Aneroid pressure	+
hPa : -	Rated speed rpm : 300
Del. quantity	+ rack travel mm : 7.50
cm2/1000 strokes : 68.0	→ Tolerance mm : ← 0.10
Tolerance	†
cm3/1000 strokes : +- 0.5	rack travel mm : 2.00
Check tolerance	Rated speed rpm : 430
cm3/1000s. : + 2.5	† Tolerance 1/min : ← 30
Spreed	Poted anad are 1 /50
Tolerance	Rated speed rpm : 450
cm3/1000 strokes : 3.0	+ CRT ray max. : < 1.00
Check tolerance cm3/1000S. : 4.5	T CRIMENIANA
UHD/ (UUU). : 4.3	I
	TORQUE CONTROL
	+ Rated speed rpm : 980
CONTROL LEVER	rack travel mm : 10.30
	+ Tolerance mm : +- 0.05
	T loterance and . The olds

Start interlock

Rated speed rpm :> 100

Check

speed 1/min 80 : >

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance am : **←** 0.75 Del. quantity

cm3/1000 strokes : 118.0 Tolerance

cm3/1000 strokes : +- 7.5 Check tolerance

cm3/1000s. : +- 10.0

LOW IDLE

Rated speed rpm : 300

7.50 Rack travel in mm : : **←** 0.10 Tolerance man Del. quantity

cm3/1000 strokes : 10.0 Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed Tolerance

4.5 cm3/1000 strokes :

Check tolerance

6.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 16.03.98 Edition : ISO 4113 Test oil

Combination No. : 0 400 866 070

Injection pump

Pump designation : PES6A90D320/3RS2464

: 0 410 896 029 EP type number

Governor

Governer design. : RSV325...1500A2C529R

: 0 420 233 189 Governer no.

Cust. part No. :

Customer-spec. information : MVM

Customer

TEST BENCH REQUIREMENTS

Test oil inlet

temp. *C : + 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar

Test Lines : 0 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

600 x tength mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke am Tolerance mm : + 0.05

Check

: + 0.10tolerance mm

Rack travel in mm : 10.50 : **←** 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

: **←** 0.50

Tolerance

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Del. quantity cm3/1000 strokes : 68.0

Tolerance

0.5 cm3/1000 strokes : +-

Check tolerance

cm3/1000s. : **←** 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000S.

4.5

325 Rated speed rpm :

Rack travel in m	
Tolerance mm Del. quantity	: ← 0.10
cm3/1000 strokes	: 10.5
Tolerance	45
cm3/1000 strokes Check tolerance	: ← 1.5
cm3/1000s.	: ← 3.5
Spreed Tolerance	
cm3/1000 strokes	: 2.5
Check tolerance cm3/1000s.	: 4.5
CRO7 10003.	: 4.3
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP
GUIDE SLEEVE POST	ITION
control lever	-
position degree Rated speed rpm	
Rack travel in ma	a : 0.50 : ← 0.20
locetaire iss	: 0.20
FULL LOAD DELIVER	RY AT FULL LOAD STOP
	_
Rated speed rpm Aneroid pressure	: 1480
Rated speed rpm Ameroid pressure hPm	: 1480
Rated speed rpm Aneroid pressure	: 1480
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance	: 1480 : - : 68.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1480 : - : 68.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1480 : - : 68.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Spreed	: 1480 : - : 68.0 : ← 0.5
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 1480 : - : 68.0 : ← 0.5 : ← 2.5
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1480 : - : 68.0 : ← 0.5 : + 2.5 : 3.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 1480 : - : 68.0 : + 0.5 : + 2.5
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1480 : - : 68.0 : ← 0.5 : + 2.5 : 3.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1480 : - : 68.0 : ← 0.5 : + 2.5 : 3.0
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Check tolerance cm3/1000s. Check tolerance cm3/1000s.	: 1480 : - : 68.0 : + 0.5 : + 2.5 : 3.0 : 4.5
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. CONTROL LEVER control lever position degree	: 1480 : - : 68.0 : + 0.5 : + 2.5 : 3.0 : 4.5
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1480 : - : 68.0 : + 0.5 : + 2.5 : 3.0 : 4.5
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1480 : - : 68.0 : + 0.5 : + 2.5 : 3.0 : 4.5
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1480 : - : 68.0 : + 0.5 : + 2.5 : 3.0 : 4.5 : 108.0 : + 4.0 : 8.00

Tolerance 1/min	
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1560 : +- 15
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : ← 0.55 : 1700
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1575 : ← 15
LOW IDLE	
control lever position degree tolerance degree	: 70.0 : ← 4.0
Setting point w/o	out bumper spring
Rated speed rpm rack travel mm Tolerwhie mm	: 325 : 7.50 : +- 0.10
Rated speed rpm	: 100
CRT mm min.	: > 19.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 325 : 7.00 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 48Ū : ← 30
Start interlock	
Rated speed rpm	: > 100
Check speed 1/min	: > 80
STARTING FUEL DEL	.IVERY

Rated speed rpm : 100

rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 118.0
Tolerance
cm3/1000 strokes : + 8.0
Check tolerance
cm3/10005. : + 11.0

LOW IDLE

325 Rated speed rom : Rack travel in mm: 7.00 : ← 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 10.5 Tolerance cm3/1000 strokes : \leftarrow 1.5 Check tolerance : **←** 3.5 cm3/1000s. Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 18.03.98 Edition Test oil : ISO 4113

Combination No. : 0 400 866 078

Injection pump

Pump designation : PES6A85D410/3RS2415 EP type number : 0 410 886 915

Governor

Governer design. : RSV325...900A7C720L

Governer no. : 0 420 232 339

cust. part No. :

Customer-spec. information Customer : KHD

: BF5L913 Motor

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C : + 2.0 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 : **←** 1.5 Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

1.95 Prestroke mm : + 0.05Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

EASIC SETTING

500 Rated speed rpm :

Rack travel in mm : 11.85 : + 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 68.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance cm3/1000s.

: +- 2.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

		1
Check tolerance		control lever
cm3/1000s.	: 4.5	+ position degree : 107.0 + tolerance degree : +- 4.0
		RATED SPEED
Rated speed rpm	: 325	rack travel mm : 10.80 Rated speed rpm : 945
Rack travel in man	8.10	Tolerance 1/min : +- 5
Tolerance ma	-	I voterance training.
Del. quantity	. , 0.10	rack travel mm : 0.85
cm3/1000 strokes	: 12.0	Tolerance mm : + 0.55
Tolerance	. 12.0	Rated speed rpm : 1100
cm3/1000 strokes	• +- 30	1 mated opera i più . Trob
Check tolerance		rack travel mm : 4.00
cm3/1000s.	: ← 5.0	Rated speed rpm : 995
Spreed		Tolerance 1/min : + 15
Tolerance		T local de la
cm3/1000 strokes	: 2.0	1
Check tolerance	. 2.0	1
cm3/1000s.	: 4.0	I
CMD7 10003.	. 7.0	LOW IDLE
(B) SETTING OF IN	AJECTION FUMP	‡
WITH GOVERNOR		+ control lever
		position degree : 75.0
		tolerance degree : +- 4.0
GUIDE SLEEVE POSI	ITION	Setting point w/out bumper spring
		Rated speed rpm : 325
control lever		rack travel mm : 7.60
position degree	: - 3	Tolerance mm : + 0.10
Rack travel in men	0.50	Testing:
Tolerance mm	: ← 0.20	+
		Rated speed rpm : 325
		rack travel mm : 8.10
FULL LOAD DELIVER	RY AT FULL LOAD STOP	Tolerance mm : + 0.10
Rated speed rpm	: 900	Ī
Aneroid pressure		+ TORQUE CONTROL
hPa	: -	+ Rated speed rpm : 900
Del. quantity		rack travel mm : 11.85
cm3/1000 strokes	: 68.5	+ Tolerance mm : +- 0.05
Tolerance		+
cm3/1000 strokes	: ← 0.5	+ Rated speed rpm : 600
Check tolerance		+ rack travel mm : 12.35
cm3/1000s.	: ← 2.5	Tolerance mm : + 0.05
Spreed		+
Tolerance		+ Rated speed rpm : 800
cm3/1000 strokes	: 3.0	rack travel mm : 12.15
Check tolerance		+ Tolerance mm : ← 0.15
cm3/1000s.	: 4.5	+
		1
CONTROL LEVER		FUEL DELIVERY CHARACTERISTICS

rack travel mm : 12.15
Tolerance mm : + 0.15

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 8.10
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 12.0
Tolerance
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 5.0
Spreed
Tolerance

2.0

Check tolerance cm3/1000s. : 4.0

cm3/1000 strokes :

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 18.03.98 Test oil : ISO 4113

Combination No. : 0 400 873 036

Injection pump

Pump designation : PES3A90D320RS2626 EP type number : 0 410 883 002

Governor

Governer design. : RSV300...975A1C2171

: -5R

Governer no. : 0 420 233 185

Cust. part No. :

Customer-spec. information

Customer : EICHER

Motor : EDL 3/8.3/9.3

Power KW : 41.0

TEST BENCH REQUIREMENTS

Inlet line : 1.0

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.25
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1- 3- 2

Phasing : 0-120-240
Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 975

Rack travel in mm : 11.40 Tolerance mm : ← 0.05

Del. quantity

cm3/1000 strokes : 77.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

	†
Check tolerance cm3/1000s. : 8.0	CONTROL LEVER
	I control lever
	position degree : 102.0
Rated speed rpm : 300	tolerance degree : +- 4.0
Rack travel in mm : 8.00	RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 10.40
Del. quantity	Rated speed rpm : 1020
cm3/1000 strokes : 20.0	Tolerance 1/min : + 5
Tolerance cm3/1000 strokes : + 2.0	Track travel mm : 4.00
Check tolerance	Rated speed rpm : 1665
cm3/1000s. : +- 4.5	+ Tolerance 1/min : + 15
Spreed	+
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 5.5	Tolerance and : + 0.55
Check tolerance cm3/1000s. : 9.0	Rated speed rpm : 1230
CR3/10008. : 9.0	rack travel mm : 4.00
	Rated speed rpm : 1080
(B) SETTING OF INJECTION PUMP	thatea speed talk . 1000
WITH GOVERNOR	+
	+
	1
CUTA E OLEMAN DOCTOR	+ LOW IDLE
GUIDE SLEEVE POSITION	Î
	control lever
control lever	position degree : 74.0
position degree : FREE	tolerance degree : + 4.0
Rated speed rpm : 800	+
	+ Setting point w/out bumper spring
Rack travel in mm : 0.50	700
Tolerance mm : + 0.20	+ Rated speed rpm : 300
_	
movemor spring	rack travel mm : 7.50
governor spring	
pre-tension	rack travel mm : 7.50 Tolerance mm : + 0.10
governor spring pre-tension click setting x : 4.50	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100
pre-tension click setting x : 4.50	rack travel mm : 7.50 Tolerance mm : + 0.10
pre-tension	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50
pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rom : 975	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rom : 975 Aneroid pressure	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 975 Aneroid pressure hPa : -	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 975 Aneroid pressure hPa : - Del. quantity	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 975 Aneroid pressure hPa : -	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rom : 975 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes : + 1.0	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 430
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rom : 975 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00
FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 975 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 430
pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 975 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 430 Tolerance 1/min : + 30
pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 975 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 430 Tolerance 1/min : + 30 TORQUE CONTROL
pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 975 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 430 Tolerance 1/min : + 30 TORQUE CONTROL
pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 975 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 430 Tolerance 1/min : + 30 TORQUE CONTROL
pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 975 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 77.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5	rack travel mm : 7.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 300 rack travel mm : 8.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 430 Tolerance 1/min : + 30

Rated speed rpm	:		500
rack travel mm	:		11.45
Tolerance mm	:	+-	0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	_
Rated speed rpm	:	600

Del. quantity

cm3/1000 strokes : 70.0

Tolerance

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		20.25
Tolerance ma	:	-	0.75
Del. quantity			

cm3/1000 strokes : 138.0

Tolerance

cm3/1000 strokes : +- 7.5

Check tolerance

cm3/1000s. $: \leftarrow 10.0$

LOW IDLE

Rated speed rpm	:	300	
Rack travel in mm	-	8.00	
Tolerance mm Del. quantity	: +-	0.10	
cm3/1000 strokes	:	20.0	
cm3/1000 strokes	: +	2.0	
Check tolerance cm3/1000s.	: +-	4.5	
Spreed Tolerance			
cm3/1000 strokes	:	5.5	

End of test specification sheet

Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 16.03.98 Test oil : ISO 4113

Combination No. : F 002 AUZ 011

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1100A0C888R

Governer no. : F 002 A20 212

Cust. part No. : 3930164

Customer spec. information Customer : CUMMINS Motor : 68TA Power KW : 124.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. *C : 40
Tolerance *C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check tolerance mm : → 0.10

Rack travel in man: 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.50 Tolerance : + 0.10

Check

tolerance *NW : + 0.29

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 13.65

Tolerance ma : + 0.05	+ Rated speed rpm : 1050 + Aneroid pressure
Del. quantity cm3/1000 strokes : 116.0	hPa : 1200 Del. quantity
Tolerance	cm3/1000 strokes : 116.0
cm3/1000 strokes : +- 1.0	cm3/1000 strokes : + 1.0 Check tolerance
Check tolerance cm3/1000s. : +- 3.0	cm3/1000s. : + 3.0 Spreed Tolerance
Spreed	cm3/1000 strokes : 4.0 Check tolerance
Tolerance cm3/1000 strokes : 4.0	cm3/1000s. : 6.5
Check tolerance cm3/1000s. : 6.5	CONTROL LEVER
Rated speed rom: 475	control lever position degree : 94.0 tolerance degree : +- 4.0
	+
Rack travel in mm : 5.95 Tolerance mm : +- 0.10	+ RATED SPEED + rack travel mm : 12.70
Del. quantity	+ Rated speed rpm : 1115
cm3/1000 strokes : 20.6	† Tolerance 1/min : + 5
Tolerance cm3/1000 strokes : +- 2.0	rack travel mm : 4.00
Check tolerance	+ Rated speed rpm : 1185
cm3/1000s. : +- 4.5	Tolerance 1/min : + 15
Spreed Tolerance	t rack travel mm : 0.85
ca3/1000 strokes : 6.0	Tolerance ma : + 0.55
Check tolerance	+ Rated speed rpm : 1300
cm3/1000s. : 8.0	+
	+ rack travel mm : 4.00 + Rated speed rpm : 1190
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	LOW IDLE
	1
control lever	T control lever
position degree : FREE	position degree : 75.0
Rated speed rpm : 800	tolerance degree : + 4.0
Rack travel in mm: 0.50	Control lever difference
Tolerance mm : + 0.20	Grad : 19.0
dovernon enning	tolerance degree : + 6.0
governor spring pre-tension	Setting point w/out bumper spring
click setting x : 2.50	+ Rated speed rpm : 475
	+ rack travel mm : 4.95
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
	+

Rated speed rom : 100 Tolerance cm3/1000 strokes : \leftarrow 2.0 CRT mm min. : > 19.00 Check tolerance cm3/1000s. : \leftarrow 4.0 Testing: Rated speed rpm : 475
rack travel mm : 5.95
Tolerance mm : + 0.10 Aneroid pressure hPa Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 83.9 rack travel mm : 2.00 Rated speed rpm : Tolerance 550 Tolerance 1/min : +- 30 cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0 TORQUE CONTROL Rated speed rpm : 1050 rack travel mm : 13.65 STARTING FUEL DELIVERY Tolerance m: $\leftarrow 0.05$ Rated speed rpm : 750 Rated speed rpm : 100 rack travel mm : 20.50 : +- 0.50 Tolerance man ANEROID/ALTITUDE Del. quantity cm3/1000 strokes : 121.5 COMPENSATOR TEST Tolerance cm3/1000 strokes : \leftarrow 10.0 Check tolerance SETTING cm3/1000s. : **←** 15.0 Rated speed rpm : 500 Pressure hPa : 500 Rated speed row : Pressure hPa LOW IDLE 10.70 rack travel mm : ← 0.20 Rated speed rpm : 475 Tolerance mm Rack travel in mp: 5.95 MEASUREMENT Tolerance $m_{\rm in}$: \leftarrow C.10 Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 20.6 550 Tolerance Pressure hPa : rack travel mm : 12.50 cm3/1000 strokes : +- 2.0Tolerance mm : → 0.20 Check tolerance cm3/1000s. : +- 4.5 Pressure hPa : 400 Spreed rack travel mm : 11.85 Tolerance cm3/1000 strokes : 6.0 Tolerance $m_{\rm m}$: \leftarrow 0.20 Check tolerance : 8.0 cm3/1000s. FUEL DELIVERY CHARACTERISTICS Aneroid pressure End of test specification sheet 1200 hPa Rated speed rpm : 750 Del. quantity

cm3/1000 strokes : 120.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 09.12.97 : ISO 4113

Combination No. : 0 402 776 819

Injection pump

Pump designation : PES6P120A320LS7285 EP type number : 0 412 726 892

Governor

Governer design. : RSV350...1100P1A601

: 0 421 833 482 Governer no.

Cust. part No. : 1823388c91

Customer-spec. information : NAVISTAR Customer Motor : DTA-531 Power KW : 222.0

TEST BENCH REQUIREMENTS

Inlet line : 2.4

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

: 2 417 413 076 Overflow valve

Inlet press. bar : 2.8 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 har : + 1.5 Tolerance bar

: 1 680 750 008 Test lines

Outside diameter : 6.0

tolerance *NW

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 13.25 Tolerance mm : **←** 0.05

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

2.0 600

per values ____

BEGINNING OF DELIVERY

x inside diameter :

x Length mm

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm 2.90 : + 0.05 Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50 Tolerance mn: \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance

: **←** 0.50

Check

: **←** 0.75 tolerance *NW

Start of delivery blocking

: + 0.50Tolerance

Check

: ← 0.75

Del. quantity cm3/1000 strokes : 216.0	Aneroid pressure hPa : 1500
Tolerance	Del. quantity cm3/1000 strokes : 216.0 Tolerance
Check tolerance	cm3/1000 strokes : + 1.0 Check tolerance
cm3/1000s. : +- 4.0	cm3/1000s. : +- 4.0 Spreed
Spreed	Tolerance cm3/1000 strokes : 5.0
Tolerance cm3/1000 strokes : 5.0	Check tolerance : 9.0
Check tolerance cm3/1000s. : 9.0	CONTROL LEVER
	control lever
Rated speed rpm : 350	position degree : 103.0
Rack travel in me: 5.50	tolerance degree : +- 4.0
Tolerance mm : + 0.10	RATED SPEED
Del. quantity + cm3/1000 strokes : 33.5 +	rack travel man : 12.20 Rated speed rpm : 1150
Tolerance	Tolerance 1/min : +- 5
cm3/1000 strokes : +- 3.0	
Check tolerance : +- 5.0 +- 5.0	- rack travel mm : 4.00 - Rated speed rpm : 1200
Spreed	- Tolerance 1/min : ← 5
Tolerance + cm3/1000 strokes : 8.0 +	· rack travel mm : 0.50
Check tolerance	Tolerance man : + 0.50
cm3/1000s. : 12.0	Rated speed rpm : 1250
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mma : 4.00 Rated speed rpms : 1205 Tolerance 1/min : +- 5
	•
GUIDE SLEEVE POSITION	LOW IDLE
control lever	•
position degree : -1 Rated speed rpm : 800	- control lever - position degree : 72.5
nateu specu rpm : ouu	tolerance degree : +- 4.0
Rack travel in mm: 0.50 Tolerance mm: : + 0.20	Setting point w/out bumper spring
governor spring pre-tension	- Rated speed rpm : 100
click setting x : 3.25	- CRT mm main. : > 19.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Testing:
	Rated speed rpm : 350
Rated speed rpm : 1100	rack travel mm : 5.50 Tolerance mm : + 0.10
'	

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 13.25 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 400 Pressure hPa : 1500

Rated speed rpm : 400
Pressure hPa : rack travel mm : 8.30
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 400

Pressure hPa : 1035
rack travel mm : 11.90
Tolerance mm : + 0.20

Pressure hPa : 450 rack travel mm : 9.30 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

Rated speed rpm : 400

Del. quantity

cm3/1000 strokes : 106.5

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel am : 20.50 Tolerance mm : + 1.00 Del. quantity

cm3/1000 strokes : 167.5

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance cm3/1000s. : ← 25.0

LOW IDLE

Rated speed rpm : 350

Rack travel in mm : 5.50
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 33.5
Tolerance
cm3/1000 strokes : + 3.0

Check tolerance
cm3/1000S. : +- 5.0
Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance cm3/100GS. : 12.0

End of test specification sheet

E07

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) ¥400/...

Edition Test oil : 12.03.98 : ISO 4113

Combination No. : F 002 A07 039

Injection pump

Pump designation : PES6A950320/3RS2881

EP type ramber

: 9 410 037 215

Governor

Governer design. : RSV500...1100A00919R

Governer no.

: F 002 A20 229

Cust. part No.

: 3932479

Customer-spec. information

: CDC Customer Motor : 6BT : 101.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 : **←** 0.1 Tolerance bar

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

208.5 Tolerance bar : + 1.5

: 1 680 750 014 Test lines

Outside diameter : 6.0

x inside diameter :

x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

2.0 600

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke man Tolerance mm : +- 0.05

Check

tolerance as $: \leftarrow 0.10$

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5- 3- 6- 2-

: 4

Phasing : 0-60-120-180-240

: -300

: + 0.50 Tolerance

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 : + 0.50 Tolerance

Check

tolerance *NW : ← 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 11.35

E08

Tolerance mm : ← 0.05 Del. quantity cm3/1000 strokes : 95.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : ← 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : ← 0.10 Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s strokes : ← 3.5 Check tolerance cm3/1000s. : ← 4.5 Spreed Tolerance cm3/1000s. : ← 5.5 Check tolerance cm3/1000s. : ← 5.5 Check tolerance cm3/1000s. : ← 5.5 Check tolerance cm3/1000s. : 5.5 Check tolerance cm3/1000s. : ↑ 5.5 Tolerance mm Rated speed rpm	 : 900 : 95.0 : + 1.0 : + 3.0 : 3.5 : 6.0 : + 4.0 : 10.30 : 1170
Del. quantity cm3/1000 strokes : 95.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000s. : - 3.5 Check tolerance cm3/1000s. : 6.0 Control Lever position degree tolerance degree Rated speed rpm : 500 Rated speed rpm : 5.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 18.5 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 18.5 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000s. : - 5.5 Check tolerance cm3/1000s. : 5.5 RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min Check speed 1/min Tolerance cm3/1000s. : 5.5 rack travel mm Rated speed rpm Tolerance 1/min Tolerance cm3/1000s. : 5.5	: 95.0 : + 1.0 : + 3.0 : 3.5 : 6.0 : + 4.0 : 10.30 : 1170
Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Control Lever position degree tolerance degree Rated speed rpm : 5.10 Tolerance mm : + 0.10 Pel. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : 4.5 Spreed Tolerance cm3/1000 strokes : 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000s. : 5.5	: + 1.0 : + 3.0 : 3.5 : 6.0 ∴ 4.0 ∴ 10.30 ∴ 1170
Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000s trokes : - 3.0 Spreed Tolerance cm3/1000s trokes Tolerance cm3/1000s trokes Tolerance cm3/1000s trokes Tolerance cm3/1000s. : - 3.5 Check tolerance cm3/1000s. : - 6.0 CONTROL LEVER Control lever position degree tolerance degree Rated speed rpm : 5.10 Tolerance mm : + 0.10 Pel. quantity cm3/1000s trokes : 18.5 Tolerance cm3/1000s trokes : 18.5 Tolerance cm3/1000s trokes : + 2.0 Check tolerance cm3/1000s trokes : + 4.5 Spreed Tolerance cm3/1000s trokes : 3.5 Check tolerance cm3/1000s trokes : 3.5 Check tolerance cm3/1000s trokes : 5.5 Check tolerance cm3/1000s trokes : 5.5 Check tolerance cm3/1000s trokes : 5.5 Tolerance 1/min Tolerance 1/min Check speed 1/min Tolerance 1/min Check speed 1/min Tolerance mm Rated speed rpm	: + 3.0 : 3.5 : 6.0 : 92.0 : + 4.0 : 10.30 : 1170
Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 CONTROL LEVER control lever position degree tolerance degree Rated speed rpm : 500 Rated speed rpm : 5.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : 4.5 Spreed Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 5.5 Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 3.5 Tolerance 1/min Check speed 1/min Tolerance mm Rated speed rpm Tolerance mm Rated speed rpm Tolerance mm Rated speed rpm	: 3.5 : 6.0 : 92.0 : + 4.0 : 10.30 : 1170
Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 Control Lever position degree tolerance degree Rated speed rpm : 500 Rated speed rpm : 5.10 Tolerance mm : + 0.10 Pel. quantity cm3/1000 strokes : 18.5 Tolerance rm3/1000 strokes : 4.5 Spreed Tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000s. : 5.5 Check tolerance cm3/1000s. : 5.5 Tack travel mm Rated speed rpm Tolerance 1/min Check speed 1/min Tolerance 1/min Check tolerance cm3/1000s. : 5.5 Tack travel mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm	: 6.0 : 92.0 : + 4.0 : 10.30 : 1170
Tolerance cm3/1000 strokes: 3.5 Check tolerance cm3/1000S. : 6.0 Control Lever position degree tolerance degree Rated speed rpm: 5.10 Tolerance mm: 5.10 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 18.5 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000S. : + 4.5 Spreed Tolerance cm3/1000 strokes: 3.5 Check tolerance cm3/1000 strokes: 3.5 Check tolerance cm3/1000 strokes: 5.5 Check tolerance cm3/1000S. : 5.5 Check tolerance cm3/1000S. : 5.5 Tack travel mm Rated speed rpm Tolerance amm Tolerance mm Rated speed rpm Rated speed rpm Tolerance mm Rated speed rpm	: 92.0 : + 4.0 : 10.30 : 1170
Cm3/1000s. : 6.0 Control Lever position degree tolerance degree Rack travel in mm : 5.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : 5.5 Check tolerance cm3/1000s. : 5.5 Check tolerance cm3/1000s. : 5.5 Tack travel mm Tolerance mm Tol	: ← 4.0 : 10.30 : 1170
Rated speed rpm : 500 Rack travel in mm : 5.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 18.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : 5.5 Check tolerance cm3/1000s. : 5.5 Check tolerance cm3/1000s. : 5.5 RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min Check speed 1/min Tolerance mm Tolerance mm Rated speed rpm Tolerance mm Rated speed rpm	: ← 4.0 : 10.30 : 1170
Rack travel in mm: 5.10 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 18.5 Tolerance cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s: + 4.5 Spreed Tolerance cm3/1000 strokes: 3.5 Check tolerance cm3/1000 strokes: 5.5 Check tolerance cm3/1000 strokes: 5.5 Check tolerance cm3/1000 strokes: 3.5 Check tolerance cm3/1000 strokes: 7.5 Check tolerance cm3/1000 strokes: 7.5 Tolerance 1/min Check speed 1/min Tolerance 1/min Tolerance mm Rated speed rpm Rated speed rpm Tolerance mm Rated speed rpm Rated speed rpm	: 10.30 : 1170
Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 18.5 Folerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5 (B) SETTING OF ENJECTION PUMP WITH GOVERNOR rack travel mm Tolerance mm Rated speed rpm Rated speed rpm	: 1170
cm3/1000 strokes: + 2.0 Check tolerance cm3/1000s.: + 4.5 Spreed Tolerance cm3/1000 strokes: 3.5 Check tolerance cm3/1000s.: 5.5 Check tolerance cm3/1000s.: 5.5 (B) SETTING OF ENJECTION PUMP WITH GOVERNOR speed 1/min Check speed 1/min Check speed 1/min Tolerance mm Rated speed rpm Rated speed rpm	: ← 5
cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5 Check tolerance cm3/1000s. : 5.5 Check tolerance cm3/1000s. : 5.5 rack travel mm Tolerance mm Rated speed rpm WITH GOVERNOR rack travel mm Rated speed rpm	: ← 10
rack travel mm Tolerance mm Rated speed rpm WITH GOVERNOR rack travel mm Rated speed rpm	: 1235 : +- 5
+ Rated speed rpm	
+ loterance l/min	: 5.40 : 1235 : ← 15
GUIDE SLEEVE POSITION + Check speed 1/min	: + 20
control lever position degree : - 3 Rated speed rpm : 800	
Rack travel in mm: 0.50 Tolerance mm: + 0.20	
governor spring control lever position degree pre-tension tolerance degree click setting x : 1.75	: 75.0
FULL LOAD DELIVERY AT FULL LOAD STOP Control lever did Grad tolerance degree	: ← 4.0

Setting point w/out bumper spring

Rated speed rpm : 500 rack travel mm : 4.60 Tolerance mm : + 0.10

Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

Rated speed rpa : 500 rack travel mm : 5.10 Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 11.35 Tolerance mm : ← 0.05

Rated speed rpm : 800 rack travel mm : 12.15 Tolerance mm : + 0.10

AMEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 800 Pressure hPa : 900

Rated speed rpm : 800
Pressure hPa : rack travel mm : 11.40
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 300

Pressure hPa : 650 rack travel mm : 11.65 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 900 Rated speed rpm : 800 Del. quantity

Del. quantity

cm3/1000 strokes : 107.5

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : + 4.0

Aneroid pressure

hPa : -Rated speed rpm : 800

Del. quantity

cm3/1000 strokes : 97.5

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity

cm3/1000 strokes : 120.5

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : \leftarrow 15.0

LOW IDLE

Rated speed rpm : 500

Rack travel in mm : 5.10
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 18.5
Tolerance
cm3/1000 strokes : + 2.0

Check tolerance cm3/1000s. : + 4.5

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 12.03.98 Test oil : ISO 4113

Combination No. : F 002 A0Z 043

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV500...1100A0C925R

Governer no. : F 002 A20 233

Cust. part No. : 3932478

Customer spec. information Customer : CDC Motor : 68T

Power KW : 90.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : +- 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm: +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-130-240

: -300

Start of delivery blocking

*NW after s.o.d. : 7.00 Tolerance : $\leftarrow 0.50$

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 10.85 Tolerance mm : + 0.05

•	- Aneroid pressure
Del. quantity	- hPa : 900
cm3/1000 strokes : 86.0	- Del. quantity
	- cm3/1000 strokes : 86.0
Tolerance	Tolerance
cm3/1000 strokes : +- 1.0	- cm3/1000 strokes : + 1.0
Check tolerance	- Check tolerance - cm3/1000s. : +- 3.0
cm3/1000s. : +- 3.0	Spreed
	Tolerance
Spreed	- cm3/1000 strokes : 3.5
	Check tolerance
Tolerance -	cm3/1000s. : 6.0
cm3/1000 strokes : 3.5	
Check tolerance	
cm3/1000s. : 6.0	CONTROL LEVER
	-
1	control lever
Rated speed rpm : 500	position degree : 94.0
Rated speed rpm : 500	tolerance degree : +- 4.0
Rack travel in am : 5.40	RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 9.80
Del. quantity	Rated speed rpm : 1165
cm3/1000 strokes : 18.5	Tolerance 1/min : + 5
Tolerance	Check
$cn3/1900$ strokes : \leftarrow 2.0	speed 1/min : + 10
Check tolerance - 4.5	rack travel mma : 6.00
Spreed 4.3	Rated speed rpm : 1220
Tolerance	Tolerance 1/min : +- 5
cm3/1000 strokes : 3.5	Check
Check tolerance	speed 1/min : + 10
cm3/1000s. : 5.5	·
1	rack travel mma : 0.85
•	Tolerance mm : + 0.55
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1350
WITH GOVERNOR	rack travel mma : 6.00
_	Rated speed rpm : 1225
	Tolerance 1/min : + 15
GUIDE SLEEVE POSITION -	Check
-	speed 1/min : +- 20
A. I. Lun	†
control Lever - position degree : - 3	
position degree : -3 - Rated speed rpm : 800 -	
Rated Speed Ppin : 000	LOW IDLE
Rack travel in mm: 0.50	
Tolerance mm : + 0.20	}
_	control lever
governor spring -	position degree : 80.0
pre-tension 7.50	tolerance degree : +- 4.0
click setting $x : 3.50$	t Control lever difference
	Grad : 14.0
FULL LOAD DELIVERY AT FULL LOAD STOP -	tolerance degree : + 6.0
•	+
Rated speed rpm : 1100 -	Setting point w/out bumper spring

Rated speed m	Den :		500
rack travel m			4.90
Tolerance ma	:	+-	0.10

Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

Rated speed rpm : 500 rack travel mm : 5.40 Tolerance mm : + 0.10

TORQUE CONTROL Rated speed ro

Rated speed rpm : 1100 rack travel mm : 10.85 Tolerance mm : + 0.05

Rated speed rpm : 800 rack travel mm : 11.55 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 800 Pressure hPa : -

MEASUREMENT

Pressure hPa : 800 rack travel mm : 11.05 Tolerance mm : + 0.30

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 900 Rated speed rpm : 800 Del. quantity

cm3/1000 strokes : 96.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : - 0.50 Del. quantity cm3/1000 strokes : 120.5 Tolerance cm3/1000 strokes : - 10.0

Check tolerance

cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 500

Rack travel in mm: 5.40
Tolerance mm: + 0.10
Del. quantity
cm3/1000 strokes: 18.5
Tolerance
cm3/1000 strokes: + 2.0
Check tolerance

cm3/1000s. : +- 4.5
Spreed
Tolerance

cm3/1000 strokes : Check tolerance

cm3/1000s. : 5.5

3.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 17.03.98 Test oil : ISO 4113

Combination No. : F 002 AOZ 069

Injection pump

Pump designation : PES6A95D320/3RS2881 EP type number : 9 410 037 215

Governor

Governer design. : RSV500...1100A2C947R

Governer no. : F 002 A20 248

Cust. part No. : 3933623

Customer-spec. information Customer : CDC Motor : 68TA Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. *C : 40
Tolerance *C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Start of delivery blocking

*NW after s.o.d. : 8.50 Tolerance : +- 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 13.00

E14

Tolerance mm : +- 0.05	Rated speed rpm : 1100 Aneroid pressure
Del. quantity cm3/1000 strokes : 109.5	hPa : 1400 Del. quantity
	- cm3/1000 strokes : 109.5
Tolerance cm3/1000 strokes : +- 1.0	Tolerance - cm3/1000 strokes : +- 1.0 - Check tolerance
Check tolerance cm3/1000s. : + 3.0	cm3/1000s. : +- 3.0 Spreed
Spreed	Tolerance - cm3/1000 strokes : 3.5 - Check tolerance
Tolerance cm3/1000 strokes : 3.5	cm3/1000s. : 6.0
Check tolerance : 6.0	CONTROL LEVER
	control lever
Rated speed rpm : 500	position degree : 98.0 tolerance degree : + 4.0
Rack travel in mm : 5.50	RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 12.00 Rated speed rom : 1155
Del. quantity cm3/1000 strokes : 21.5	Rated speed rpm : 1155 Tolerance 1/min : + 5
Tolerance	Check
cm3/1000 strokes : +- 2.0 -	speed 1/min : + 10
Check tolerance - 4.5 - 4.5	rack travel mm : 4.00
Spreed	Rated speed rpm : 1245
Tolerance - 3.5	Tolerance 1/min : +- 5 Check
cm3/1000 strokes : 3.5 Check tolerance	speed 1/min : +- 10
cm3/1000s. : 5.5	
•	rack travel mm : 0.85 Tolerance mm : + 0.55
(B) SETTING OF INJECTION PUMP	Tolerance mm : +- 0.55 Rated speed rpm : 1400
WITH GOVERNOR	
1	rack travel mm : 4.00 Rated speed rpm : 1245
	Rated speed rpm : 1245 Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION -	- Check
]	speed 1/min : + 20
control lever position degree : - 3 Rated speed rpm : 800	
Rated speed rpm : 800	LOW IDLE
Rack travel in mm : 0.50 - Tolerance mm : + 0.20 -	
,	control lever
governor spring	position degree : 78.0 tolerance degree : + 4.0
click setting x : 3.50	-
	Control lever difference
FULL LOAD DELIVERY AT FULL LOAD STOP	f Grad : 20.0 tolerance degree : + 6.0
TOLL LOND DELIVERY AT FOLL LOND STOP	toterance degree . • 0.0
•	•

Setting point w/out bumper spring

Rated speed rpm	:		500
rack travel mm	:		5.00
Tolerance mm	:	+	0.10

Rated speed rpm : 100

CRY mm min. :	>	19.00
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Testing:

Rated speed r	ora :	500
rack travel m		5.50
Tolerance mm	:	← 0.10

TORQUE CONTROL

Rated speed rpm	:	1	1100
rack travel mm	:		13.00
Tolerance mm	:	+-	0.05

Rated speed rpm	:	750
rack travel mm	:	14.65
Tolerance man	: +	- 0.10

Rated speed rpm	:	1	1000
rack travel mm	:		13.80
Tolerance mm		+-	0.20

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	1400

Rated speed rpm	:	500
Pressure hPa		-
rack travel mm	:	10.60
Tolerance mm	: 4	− 0.20

MEASUREMENT

Rated	speed	rpm	:	500

Pressure hPa	:		800
rack travel mm	:		13.50
Tolerance mm	:	+-	0.20

Pressure hPa	:	600
rack travel mm	:	12.00
Tolerance mm	: +-	- 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	1400
Rated speed rpm	:	750
Del. quantity		
cm3/1000 strokes	:	132.5
Tolerance		
cm3/1000 strokes	: 1	⊢ 2.0
Check tolerance		

cm3/1000s.	: +	4.0

rack travel mm	:	13.80
Tolerance mm	: +-	0.20

Aneroid	pressure

hPa	:	_
Rated speed rpm	:	500
Del. quantity		

cm3/1000 strokes : 82.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		20.50
Tolerance mm	:	+-	0.50
Del. quantity			
cm3/1000 strokes	:		121.5
Tolerance			
cm3/1000 strokes	:	+-	10.0
Check tolerance			
cm3/10 0 0s.	:	+-	15.0

LOW IDLE

Rated speed rpm	:		500
Rack travel in mm Tolerance mm	:	+	5.50 0.10
Del. quantity cm3/1000 strokes	:		21.5
Tolerance cm3/1000 strokes Check tolerance	:	+-	2.0
cm3/1000s.	:	+-	4.5
Tolerance cm3/1000 strokes	:		3.5

cm3/1000s.	:	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) \\\400/...

Edition Test oil

: 19.01.95 : ISO 4113

Combination No. : 0 401 646 003

Injection pump

Pump designation : PES6R120/720LS1505

EP type number : 0 411 626 005

Governor

Governer design. : RQV300...1100R3K : 0 421 415 004 Governer no.

Cust. part No. : 51,11103-7393

Customer-spec, information

Customer : MAN : D2866LE401 Motor

Power KW : 440.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Inlet press. bar : 1.5 Tolerance bar : $\leftarrow 0.1$

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 5.45
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 12.00

Tolerance mm : + 0.50

Firing order : 6-2-4-1-5-

: 3

Phasing : 0-60-120-180-240

: -300 : +- 0.30 Tolerance

Check

: +- 0.75 tolerance *NW

Start of delivery mark

Barrel no. :

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 15.30 Tolerance nm: + 0.05

Del. quantity

cm3/1000 strokes : 385.0

Tolerance cm3/1000 strokes	: ← 1.0	+ guide + trave
	1.0	Toler
Check tolerance cm3/1000s.	: +- 4.0	† natad
CM3/10003.	: + 4.0	+ Rated + guide
Spreed		+ trave
oprecu		Toler
Tolerance		+
cm3/1000 strokes	: 6.0	Rated
		+ guide
Check tolerance	40.0	trave
cm3/1000s.	: 10.0	† Toler
		I
		† enide
Rated speed rpm	: 325	+
		+ .
Rack travel in m		+ contr
Tolerance mm	: ← 0.10	+ posit + Rated
Del. quantity cm3/1000 strokes	: 20.0	I
Tolerance	. 20.0	Rack
cm3/1000 strokes	: +- 3.G	Toler
Check tolerance		+
cm3/1000s.	: ← 6.0	+
Spreed		+ FULL
Tolerance	40.5	†
cm3/1000 strokes	: 10.0	Rated
Check tolerance cm3/1000s.	: 14.0	+ Anero
CRS/ 10003.	. 14.0	Del.
		- cm3/1
(B) SETTING OF I	NJECTION PUMP	+ Toler
WITH GOVERNOR		+ cm3/1
		+ Check
GUIDE SLEEVE TRA	VPI	+ cm3/1 + Spree
POTRE PREENE INV	ACL	Toler
Rated speed rpm	: 1164	- cm3/1
guide sleeve		+ Check
travel mm	: 10.04	+ cm3/1
Tolerance mm	: + 0.25	†
Dated assed non	: 325	İ
Rated speed rpm guide sleeve	: 525	CONTR
travel mm	: 2.12	I
Tolerance ma	: + 0.25	contr
		posit
Rated speed rpm	: 826	† toler
guide sleeve		†
travel mm	: 6.86 : + 0.25	RATED
Tolerance mm	: + 0.25	+ rack + Rateo
Rated speed rpm	: 338	+ Toler
guide sleeve	. 550	1 1000
travel mm	: 2.28	+ rack
Tolerance mm	: + 0.25	Rated
		Toler
Rated speed rpm	: 388	+
water object the		

guide sleeve	2.00
travel mm Tolerance mm	: 2.90 : +- 0.25
Rated speed rpm	: 510
guide sleeve travel mm	: 4.02
Tolerance mm	: +- 0.25
Rated speed rpm guide sleeve	: 1430
travel mm	: 13.50 : ← 0.50
Tolerance mm	: +- 0.50
GUIDE SLEEVE POSI	TION
control lever	
position degree Rated speed rpm	: - 1 · 1230
Rack travel in mm Tolerance mm	14.30 : +- 1.30
TOTEL MILE INN	
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm Aneroid pressure	
hPa	: 2500
Del. quantity cm3/1000 strokes	: 385.0
Tolerance	: 385.0
cm3/1000 strokes	: - 1.0
Check tolerance cm3/1000s.	: + 4.0
Spreed	
Tolerance cm3/1000 strokes	: 6.0
Check tolerance	
cm3/1000s.	: 10.0
CONTROL LEVER	
control lever	
position degree	: 122.0
tolerance degree	: ← 4.0
RATED SPEED	• 1/ 70
rack travel mm Rated speed rpm	: 14.30 : 1152
Tolerance 1/min	: + 8
rack travel mm	: 4.00
Rated speed rpm	: 1295
Tolerance 1/min	: 15

rack travel am Tolerance mam Rated speed rpm	: 0.50 : ← 0.50 : 1425
LOW IDLE	
control lever position degree tolerance degree	: 76.0 : ← 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 225
CRT mm min.	: > 7.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 325 : 5.10 : + 0.10
Rated speed rpm	: 350
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1100 : 15.30 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 900 : 13.90 : ← 0.10
Rated speed rpm rack travel may Tolerance man	: 700 : 12.60 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1100 : 2500 : 15.30 : ← 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1100 : - : 8.20 : ← 0.20
MEASUREMENT	

Rated speed rpm	: 1100
Pressure hPa rack travel man Tolerance man	: 1400 : 13.70 : +- 0.20
Pressure hPa rack travel mm Tolerance mm	: 300 : 8.60 : + 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 260
Check speed 1/min	: > 80
Check speed 1/min	: < 280
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 353.0
Aneroid pressure hPa Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : 187.0 : + 1.0 : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 555.0

Tolerance

cm3/1000 strokes : + 20.0

Check tolerance

cm3/1000s. : \leftarrow 24.0

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 5.10 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 20.0

Toterance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 6.0

Spreed

Tolerance

cm3/1000 strokes : 10.0

Check tolerance

cm3/1000s. : 14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.06.93 Edition : ISO 4113 Test oil

Combination No. : 0 401 846 975

Injection pump

Pump designation : PE6P110A720RS3243 EP type number : 0 411 816 770

60vernor

Governer design. : RQ300/1100PA412-5 Governer no. : 0 421 801 562

Cust. part No. : 615.60.08.0267

Customer-spec. information : SNF Customer Motor : WD615.63 Power KW : 204.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Toterance *C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 har Tolerance bar

: 1 680 750 089 Test lines

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : + 1.0

Frestroke mm 2.85 : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Pack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance 'NW : ← 0.70

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.75 Tolerance mm : $\leftarrow 0.05$

Del. quantity

cm3/1000 strokes : 165.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.	: + 4.0
CSD/ 10005.	. — 4.0
Spreed	
Tolerance	
cm3/1000 strokes	: 4.0
Check tolerance	. 75
cm3/1000s.	: 7.5
Rack travel in mm	: 4.00
Tolerance mm	: ← 0.10
Del quantity	
cm3/1000 strokes	: 20.0
Tolerance	: + 3.0
cm3/1000 strokes Check tolerance	: ← 3.0
cn3/1000s.	: ← 6.0
Spreed	
Tolerance	
	: 4.5
cm3/1000 strokes	
Check tolerance	
	: 7.5 JECTION PUMP
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR	JECTION PUMP
Check tolerance cm3/1000s. (B) SETTING OF IN	JECTION PUMP
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVERATED TRAVERATED SPEED TRAVERATED JECTION PUMP	
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVERATED SLEEVE SLEEVE TRAVERATED SLEEVE SLE	JECTION PUMP EL : 1157
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVERATED SLEEVE SLEEVE TRAVERATED SLEEVE TRAVERATED SLEEVE TRAVERATED SLEEVE TRAV	JECTION PUMP EL : 1157 : 6.46
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVERATED SLEEVE SLEEVE TRAVERATED SLEEVE SLE	JECTION PUMP EL : 1157
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVERATED SLEEVE SLEEVE TRAVERATED SLEEVE TRAVERATED SLEEVE TRAVERATED SLEEVE TRAV	JECTION PUMP EL : 1157 : 6.46
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVERATED SLEEVE SLEEVE TRAVERATED SLEEVE TRAVERATED SLEEVE TRAVERATED SLEEVE TRAV	JECTION PUMP EL : 1157 : 6.46 : +- 0.10
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVERATED SLEEVE TRAVERATED SLEEVE TRAVERATED IN TOLERANCE IN	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVERATE Speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : +- 0.10
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : +- 0.10 : 1100 : 6.00
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : +- 0.10 : 1100
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : +- 0.10 : 1100 : 6.00 : ← 0.10
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : +- 0.10 : 1100 : 6.00
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : +- 0.10 : 1100 : 6.00 : +- 0.10 : 378 : 3.69
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : +- 0.10 : 1100 : 6.00 : +- 0.10 : 378
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : +- 0.10 : 1100 : 6.00 : +- 0.10 : 378 : 3.69
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : + 0.10 : 1100 : 6.00 : + 0.10 : 378 : 3.69 : + 0.10
Check tolerance cm3/1000s. (B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAVI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm	JECTION PUMP EL : 1157 : 6.46 : +- 0.10 : 300 : 1.99 : + 0.10 : 1100 : 6.00 : + 0.10 : 378 : 3.69 : + 0.10

Rated speed rpm : 1330 guide sleeve : 11.50 travel mm Tolerance mm : **←** 0.50 GUIDE SLEEVE POSITION control lever position degree : - 1 Rated speed rpm : 600 Rack travel in mm: 15.00 : **←** 0.40 Tolerance mm FULL LOAD DELIVERY AT FULL LOAD STOP Aneroid pressure Del. quantity cm3/1000 strokes : 165.0 Tolerance cm3/1000 strokes : \leftarrow 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance 4.0 cm3/1000 strokes : Check tolerance 7.5 cm3/1000s.: CONTROL LEVER control lever position degree : 100.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.70 Rated speed rpm : 1153 Tolerance 1/min : +-4.00 rack travel mm : Rated speed rpm : 1250 Tolerance 1/min : + 15 : 0.50 : + 0.50 rack travel mm Tolerance mm Rated speed rpm : 1350 LOW IDLE

control	lever
---------	-------

position degree : 73.0 tolerance degree : + 4.0

Setting point w/out bumper spring

100 Rated speed rpm :

CRT mon min. :>5.50

Testing:

300 Rated speed rpm rack travel mm 4.00 : + 0.10Tolerance mm

2.00 rack travel mm Rated speed rpm : 37'U Tolerance 1/min : + 20

TORQUE CONTROL

Rated speed rom : 1100 rack travel mm : 12.75 Tolerance man : +- 0.05

700 Rated speed rom : rack travel mm : 12.75 Tolerance mm : ← 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

500 Rated speed rpm : Pressure hPa : 1200 rack travel mm : 12.75 : **←** 0.05 Tolerance ann

Rated speed rpm : 500 Pressure hPa : 10.60 rack travel mm : +- 0.10 Tolerance man

MEASUREMENT

Rated speed rpm : 500

Pressure hPa 325 10,40 rack travel mm : + 0.10 Tolerance mm

500 Pressure hPa : rack travel mm : 11.95 : +- 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa

Del. quantity

cm3/1000 strokes : 174.0

Tolerance

 $c_{1}3/1000 \text{ strokes} : +- 2.0$

Check tolerance

cm3/1000S. : **←** 5.0

Aneroid pressure

hPa Del. quantity

cm3/1000 strokes : 121.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. 4.0

STARTING FUEL DELIVERY

100 18 0 Rated speed rom rack travel mm : 18.00 : +- 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 252.0

Tolerance

cm3/1000 strokes : +- 20.0 Check tolerance

cm3/1000s.

: **←** 24.0

LOW IDLE

Rack travel in mm: 4.00 : **←** 0.10 Tolerance mms Del. quantity 20.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance 7.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.06.93 Test oil : ISO 4113

Combination No. : 0 401 846 976

Injection pump

Pump designation : PE6P110A720RS3243 EP type number : 0 411 816 770

Governor.

Governer design. : RQ300/1100PA412-4 Governer no. : 0 421 801 496

Cust. part: No. : 615.60.08.0268

Customer—spec. information Customer : SNF Motor : WD615.68 Power KW : 228.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 13.75
Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 184.0

Tolerance cm3/1000 strokes : +- 1.0

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		_ 1
theck tolerance cm3/1000s.	: + 4.0	
Spreed		_
Tolerance cm3/1000 strokes	: 4.0	-
Check tolerance cm3/1000s.	: 7.5	
		-
Rack travel in mm Folerance mm Del. quantity	: 4.00 : + 0.10	
mis/1000 strokes Tolerance	: 18.0	
cm3/1000 strokes Check tolerance	: + 3.0	
cm3/1000s.	: ← 6.0	
Tolerance		
cm3/1000 strokes	: 4.5	•
Check tolerance cm3/1000s.	: 7.5	
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP	-
(B) SETTING OF IN WITH GOVERNOR		-
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV	EI.	
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV	EI.	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve	EI. : 1158	
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV	EI.	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	'El. : 1158 : 6.43	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL. : 1158 : 6.43 : + 0.10 : 300	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 1158 : 6.43 : + 0.10	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Tolerance mm	EL. : 1158 : 6.43 : + 0.10 : 300 : 1.97	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL. : 1158 : 6.43 : + 0.10 : 300 : 1.97 : + 0.10 : 1100	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL. : 1158 : 6.43 : + 0.10 : 300 : 1.97 : + 0.10 : 1100 : 6.00	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL. : 1158 : 6.43 : + 0.10 : 300 : 1.97 : + 0.10 : 1100 : 6.00 : + 0.10	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Guide sleeve travel mm Tolerance mm	EL. : 1158 : 6.43 : + 0.10 : 300 : 1.97 : + 0.10 : 1100 : 6.00	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL. : 1158 : 6.43 : + 0.10 : 300 : 1.97 : + 0.10 : 1100 : 6.00 : + 0.10 : 378	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Guide sleeve travel mm Tolerance mm	EL. : 1158 : 6.43 : + 0.10 : 300 : 1.97 : + 0.10 : 1100 : 6.00 : + 0.10	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Guide sleeve travel mm Tolerance mm Rated speed rpm Tolerance mm Rated speed rpm Tolerance mm	EL. : 1158 : 6.43 : + 0.10 : 300 : 1.97 : + 0.10 : 1100 : 6.00 : + 0.10 : 378 : 3.66 : + 0.10	
(B) SETTING OF INWITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide steeve travel mm Tolerance mm Rated speed rpm guide steeve travel mm Tolerance mm Rated speed rpm guide steeve travel mm Tolerance mm Rated speed rpm guide steeve travel mm Tolerance mm Rated speed rpm guide steeve travel mm Tolerance mm Tolerance mm	EL. : 1158 : 6.43 : + 0.10 : 300 : 1.97 : + 0.10 : 1100 : 6.00 : + 0.10 : 378 : 3.66 : + 0.10	

Rated speed rpm : 1330 guide sleeve 11.50 travel mm : +- 0.50 Tolerance mm GUIDE SLEEVE POSITION control lever position degree : - 1 Rated speed rpm : 600 Rack travel in mm: 16.00 Tolerance mm : **←** 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Aneroid pressure hPa Del. quantity cm3/1000 strokes : 184.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. : +-Spreed Toterance cm3/1000 strokes : 4.0 Check tolerance 7.5 cm3/1000S. * CONTROL LEVER control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED 12,70 rack travel mm : Rated speed rpm : 1153 Tolerance 1/min : +rack travel mm : 4.00 Rated speed rpm : 1255 Tolerance 1/min : + 15 rack travel mm 0.50 : **←** 0.50 Tolerance mm Rated speed rpm : 1350 LOW IDLE

control lever

position degree : 73.0 tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 100

CRT mm min. :> 5.50

Testing:

Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 370
Tolerance 1/min : + 20

TORQUE CONTROL

Rated speed rpm : 1100 rack travel man : 13.75 Tolerance man : + 0.05

Rated speed rpm : 700 rack travel mm : 13.75 Tolerance mm : ← 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1200
rack travel mm : 13.75
Tolerance mm : ← 0.05

Rated speed rpm : 500

Pressure hPa : rack travel mm : 10.05

Tolerance mm : + 0.15

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 375
rack travel nm : 11.00
Tolerance mm : + 0.10

Pressure hPa : 630 rack travel mm : 12.95 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa : Del. quantity

cm3/1000 strokes : 194.0

Tolerance

cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0

Aneroid pressure

hPa : Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 245.0

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance

cm3/1000s. : \leftarrow 24.0

LOW IDLE

Rack travel in mm : 4.00
Tolerance mm : + 0.10
Del. quantity

cm3/1000 strokes : 18.0

Tolerance

cm3/1000 strokes : +- 3.0 Check tolerance

cm3/1000s. \div 6.0

Spreed Tolerance

cm3/1000 strokes : 4.5 Check tolerance

cm3/1000s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.06.93 Test oil : ISO 4113

Combination No. : 0 401 846 977

Injection pump

Pump designation : PE6P110A720RS3243 EP type number : 0 411 816 770

Governor

Governer design. : RQV250...1100PA413

: -5

Governer no. : 0 421 813 811

Cust. part No. : 615.60.08.0269

Customer-spec, information Customer : SNF : WD615.68 Motor

Power KW : 228.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : +- 2.0 Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

: 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

: +- 0.50 Tolerance

Check

: **←** 0.75 tolerance *NW

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 13.75 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 184.0

Tolerance cm3/1000 strokes : +- 1.0	guide sleeve travel mm : 2.42 Tolerance mm : +- 0.25
Check tolerance cm3/1000s. : ← 4.0	Rated speed rpm : 510 guide sleeve
Spreed	travel mm : 3.11 Tolerance mm : + 0.25
Tolerance cm3/1000 strokes : 4.0	+ Rated speed rpm : 1390 + guide sleeve
Check tolerance cm3/1000s. : 7.5	travel mm : 11.50 Tolerance mm : + 0.50
	GUIDE SLEEVE POSITION
Rack travel in mm : 4.00	‡
Tolerance mm : + 0.10	control lever
Del. quantity	<pre>position degree : - 1</pre>
cm3/1000 strokes : 18.0	+ Rated speed rpm : 1210
Tolerance	† Rack travel in mm : 12.75
cm3/1000 strokes : +- 3.0 Check tolerance	+ Tolerance man : +- 1.30
cm3/1000s. : +- 6.0	Total lice han
Spreed	
Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : 4.5	*
Check tolerance cm3/1000s. : 7.5	+ Aneroid pressure + hPa : -
(M3/10005. : 7.3	Del. quantity
	+ cm3/1000 strokes : 184.0
(B) SETTING OF INJECTION PUMP	Tolerance
WITH GOVERNOR	+ cm3/1000 strokes : + 1.0 + Check tolerance
	+ cm3/1000s. : $+$ 4.0
GUIDE SLEEVE TRAVEL	+ Spreed
Rated speed rom : 1157	+ Tolerance + cm3/1000 strokes : 4.0
Rated speed rpm : 1157 guide sleeve	Check tolerance
travel mn : 8.51	+ cm3/1000s. : 7.5
Tolerance mm : + 0.25	+
252	†
Rated speed rpm : 250	CONTROL LEVER
guide sleeve travel man : 1.13	T CONTROL LEVER
Tolerance man : + 0.25	control lever
	position degree : 108.0
Rated speed rpm : 816	tolerance degree : +- 4.0
guide sleeve	+ RATED SPEED
travel mm : 5.35 Tolerance mm : + 0.25	+ rack travel mm : 12.70
Tolerance mm : + 0.25	Rated speed rpm : 1145
Rated speed rpm : 356	+ Tolerance 1/min : + 5
guide sleeve	+
travel mm : 1.99	+ rack travel mm : 4.00
Tolerance mm : + 0.25	+ Rated speed rpm : 1255 + Tolerance 1/min : +- 15
Rated speed rpm : 406	}
·	+ rack travel mm : 0.50

Tolerance mm Rated speed rpm		+ Tolerance mm		0.10
		+ Pressure hPa	:	630 12.95
		rack travel mm	:	12.95
		Tolerance mm	; +	0.05
LOW IDLE		Start interlock		
control lever		Rated speed rpm	: >	100
osition degree	: 72.0	+ Rated speed rpm		
olerance degree	: ← 4.0	+		
AA *	A 6	+ Check		0.0
tting point w/ou	t bumper spring	+ speed 1/min + Check	; >	80
ed speed rpm	: 100	speed 1/min	• <	190
ed Speed tpm	. 100	Speed William	• `	170
mm min.	: > 5.50	FUEL DELIVERY CHA	DACTE	DISTIC
ing:		T POEL DELIVERY CHA	RACIE	KISIIC
d speed rpm	: 250	Aneroid pressure		
travel mm	: 4.00	+ hPa	:	-
rance mm	: ← 0.10	+ Del. quantity		
	700	+ cm3/1000 strokes	:	195.0
speed rpm	: 300	+ Tolerance + cm3/1000 strokes		. 7 (
		- + Check tolerance	•	٥.٠
CONTROL		- cm3/1000s.	: +	6.0
peed rom	: 1100	+		
ravet mm	: 13.75	+		
nce mms	: ← 0.05	+ Aneroid pressure		
	. 700	hPa	:	_
peed rpm	: 13.75	Del. quantity - cm3/1000 strokes	•	120 (
avet nam ce nam	: +- 0.05	Tolerance	•	120.0
HICC MAN		cm3/1000 strokes	: +-	1.0
		+ Check tolerance		
ALTITUDE NTOR TEST		+ cm3/1000s.	: +-	4.5
ING		STARTING FUEL DEL	.IVERY	
d speed rpm	: 500	Rated speed rpm	:	100
ure hPa	: 1200	Del. quantity		2/5
travel mm	: 13.75 : + 0.05	+ cm3/1000 strokes + Tolerance	:	245.0
ence ma	: +- 0.05	+ cm3/1000 strokes	• +-	- 20 (
speed rpm	: 500	+ Check tolerance	• `	20.0
e hPa	: -	- cm3/1000s.	: +-	- 24.0
avel mm	: 10.05	+		
ance mm	: ← 0.15	<u> </u>		
FUREMENT		LOW IDLE	····	
speed rpm	: 500	T LOW INCE		
ure hPa	: 375	+ Rack travel in mm	a :	4.00
	: 11.00	Tolerance mm	: +-	

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Del. quantity cm3/1000 strokes	:	18.0
Tolerance cm3/1000 strokes	: +-	3.0
Check tolerance cm3/1000s.	: +-	6.0
Spreed Tolerance		. ~
cm3/1000 strokes Check tolerance	:	4.5
cm3/1000s.	:	7.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.06.93 : ISO 4113

Combination No. : 0 401 846 978

Injection pump

Pump designation : PE6P110A720RS3243-1

EP type number : 0 411 816 791

Governor

Governer design. : R9300/1100PA412-8

Governer no. : 0 421 801 683

Cust. part No. : 615.60.08.0270

Customer-spec. information

Customer : SNF

Motor

: WD615.97

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C

40

Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar :

1.5

Tolerance bar : + 0.1

Test nozzle holde

assembly

: O 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance $\mathbf{m} = \mathbf{r} + \mathbf{0.10}$

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

: +- 0.30 Tolerance

Check

tolerance *NW : +- 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 13.25

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 184.0

Tolerance	guide sleeve
cm3/1000 strokes : +- 1.0 -	- travel mm : 6.00 - Tolerance mm : ← 0.10
Check tolerance	- Tolerance mm : ← 0.10
$cm3/1000s.$: \leftarrow 4.0	Rated speed rpm : 1330
Connect	guide sleeve
Spreed	travel mm : 11.50 Tolerance mm : + 0.50
Tolerance	7
cm3/1000 strokes : 4.0	
Check tolerance	GUIDE SLEEVE POSITION
cm3/1000s. : 7.5	
	control lever
-	position degree : -1
	Rated speed rpm : 600
Rack travel in mm : 3.80	Rack travel in mm: 16.00
Tolerance mm : + 0.10	Tolerance mm : ← 0.60
Del. quantity	
cm3/1000 strokes : 18.0 - Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : +- 3.0	- TOLL LOAD DELIVERY AT TOLL LOAD STOR
Check tolerance -	Aneroid pressure
$cm3/1000S$. : \leftarrow 6.0	hPa : -
Spreed - Tolerance -	Del. quantity cm3/1000 strokes : 184.0
cm3/1000 strokes : 4.5	Tolerance
Check tolerance -	cm3/1000 strokes : +- 1.0
cm3/1000s. : 7.5	├ Check tolerance ├ cm3/1000s. : + 4.0
	- Cm3/10005. : - 4.0 - Spreed
(B) SETTING OF INJECTION PUMP	Tolerance
WITH GOVERNOR -	cm3/1000 strokes : 4.0
•	Check tolerance : 7.5
GUIDE SLEEVE TRAVEL	Cm5/1000s. : 7.3
•	}
Rated speed rpm : 1158 -	CONTROL LEVER
guide sleeve - travel mm : 6.44 -	L CONTROL LEVER
Tolerance mm : + 0.10	control lever
700	position degree : 102.0
Rated speed rpm : 300 - guide sleeve -	tolerance degree : + 4.0
travel mm : 1.98	RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 12.20
	Rated speed rpm : 1153
Rated speed rpm : 1100 - guide sleeve -	+ Tolerance 1/min : +- 8
travel mm : 6.00	rack travel mm : 4.00
Tolerance mm : + 0.10	Rated speed rpm : 1255
Detect enough page 1 777	Tolerance 1/min : + 15
Rated speed rpm : 373 - guide sleeve -	rack travel mm : 0.60
travel mm : 3.53	Tolerance mm : +- 0.60
Tolerance mm : + 0.10	Rated speed rpm : 1350
Rated speed rom : 510 -	İ
Rated speed rpm : 510 -	T

LOW IDLE

control lever

position degree : 73.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. :> 5.20

Testing:

Rated speed rpm : 300 rack travel mm : 3.80 Tolerance mm : + 0.10

rack travel mm : 2.00 Rated speed rpm : 370 Tolerance 1/min : ← 20

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 13.25 Tolerance mm : + 0.05

Ratted speed rpm : 700 rack travel mm : 13.25 Tolerance mm : + 0.65

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1200
rack travel mm : 13.25
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 9.70
Tolerance mm : +- 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 375
rack travel mm : 10.70
Tolerance mm : + 0.10

Pressure hPa : 630 rack travel mm : 12.45 Tolerance mm : ← 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

Del. quantity

cm3/1000 strokes : 190.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : + 5.0

Aneroid pressure

hPa : -

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. $: \leftarrow 4.0$

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 18.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 245.0

Tolerance

cm3/1000 strokes : +- 20.0

Check tolerance

cm3/1000s. : \leftarrow 24.0

LOW IDLE

Rack travel in mm : 3.80
Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 18.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance cm3/1000s.

1000s. : +- 6.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance cm3/1000s.	:	7.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 13.10.93 : ISO 4113

Combination No. : 0 401 846 979

Injection pump

Pump designation : PE6P110A720RS3243 EP type number : 0 411 816 770

Governor

Governer design. : RQV250...1100PA413

: -6

Soverner no.

: 0 421 813 898

Cust. part No. : 615.60.08.0271

Customer-spec. information

Customer : SNF

Motor

: WD615.63

Power KW : 204.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 417 413 025

1.5 Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : **←** 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter:

600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 2.85 : + 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

: **←** 0.30 Tolerance

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.75

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 165.0

	• • •
Tolerance +	guide sleeve
$cm3/1000$ strokes : \leftarrow 1.0	travel mm : 2.42
	Tolerance mm : + 0.25
Check tolerance	540
cm3/1000s. : + 4.0	Rated speed rpm : 510
	guide sleeve
Spreed +	travel mm : 3.11
t <u> </u>	Tolerance mm : +- 0.25
Tolerance	
cm3/1000 strokes : 4.0	Rated speed rpm : 1390
	guide sleeve
Check tolerance	travel mm : 11.50
cm3/1000s. : 7.5	Tolerance mm : + 0.50
†	CUITAGE OF FELLE DAGGETTAN
· †	GUIDE SLEEVE POSITION
Cook Amount to one of 150	
Rack travel in mm: 4.50 + Tolerance mm : + 0.10 +	
	control lever
Del. quantity + cm3/1000 strokes : 23.0 +	position degree : - 1 Rated speed rpm : 1220
	Rated speed rpm : 1220
Tolerance + 3.0 + 3.0	Rack travel in mm : 11.75
Check tolerance	Tolerance mm : +- 1.30
	rocerance was . The 1.50
Spreed + Tolerance +	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : 4.5	FOLL LOAD DELIVERY AT FOLL LOAD STOP
Check tolerance	Aneroid pressure
cm3/1000s. : 7.5	hPa : -
CH3/10005.	Del. quantity
1	cm3/1000 strokes : 165.0
(B) SETTING OF INJECTION PUMP	Tolerance
WITH GOVERNOR	cm3/1000 scrokes : + 1.0
+	Check tolerance
	cm3/1000s. : + 4.0
GUIDE SLEEVE TRAVEL	Spreed
+	Tolerance
Rated speed rpm : 1157	cm3/1000 strokes : 4.0
guide sleeve	Check tolerance
travel mm : 8.51	cm3/1000s. : 7.5
Tolerance mm : + 0.25	
+	
Rated speed rpm : 250	
guide steeve	CONTROL LEVER
travel mm : 1.13 Tolerance mm : + 0.25	
Tolerance m_0 : \leftarrow 0.25	control lever
†	position degree : 110.0
Rated speed rpm : 816	tolerance degree : + 4.0
guide steeve	
travel mm : 5.35	RATED SPEED
Tolerance mm : + 0.25	rack travel mm : 11.70
†	Rated speed rpm : 1145
Rated speed rpm : 356	Tolerance $1/\min$: \leftarrow 5
guide sleeve	
travel mm : 1.99	rack travel mm : 4.00
Tolerance mm : + 0.25	Rated speed rpm : 1255
Data di anno di anno di 100	Tolerance 1/min : +- 15
Rated speed rpm : 406	rack travel mm : 0.50
†	rack travel mm : 0.50

Toterance am Rated speed rpm	: ← 0.50 : 1350
LOW IDLE	
control lever position degree tolerance degree	: 78.0 : ← 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 100
CRT mm min.	: > 6.00
Testing:	
Rated speed rpm rack travel (mm) Tolerance mm	: 250 : 4.50 : + 0.10
Rated speed rpm	: 300
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 12.75 : + 0.05 : 700
AMEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 12.75 : + 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 10.00 : + 0.10
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm	: 325 : 10.40

Tolerance mm	: + 0.10	
Pressure hPa rack travel mm Tolerance mm	: 500 : 11.95 : ← 0.05	
Start interlock		
Rated speed rpm Rated speed rpm	: > 100 : < 170	
Check speed 1/min Check	: > 80	
speed 1/min	: < 190	
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure	: -	
Del. quantity cm3/1000 strokes Tolerance	: 176.0	
cm3/1000 strokes Check tolerance	: ← 2.0	
cm3/1000s.	: + 5.0	
Aneroid pressure hPa bel. quantity	: -	
cm3/1000 strokes Tolerance	: 121.0	
cm3/1000 strokes Check tolerance	: + 1.0	
em3/1000s.	: + 4.0	
STARTING FUEL DEL	IVERY	
Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 100 : 18.00 : + 0.50	
cm3/1000 strokes	: 252.0	
cm3/1000 strokes Check tolerance	: ← 20.0 : ← 24.0	
cm3/1000S.	: +- 24.0	
LOW IDLE		

Rack travel in man Tolerance man	:	+-	4.50 0.10
Del. quantity cm3/1000 strokes Tolerance	:		23.0
cm3/1000 strokes Check tolerance	:	+-	3.0
cm3/1000s. Spreed	:	+-	6.0
Tolerance cm3/1000 strokes Check tolerance	:		4.5
cm3/1000s.	:		7.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 13.10.93 Test oil : ISO 4113

Combination No. : 0 401 846 980

Injection pump

Pump designation : PE6P110A720RS3243 EP type number : 0 411 816 770

Sovernor

Governer design. : RQ300/1100PA412-9

Governer no. : 0 421 801 696

Cust. part No. : 615.60.08.0277

Customer—spec. information Customer : SNF

Motor : WD615.42/43

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.80 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 155.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s.	: + 4.0
Spreed	
Tolerance cm3/1000 strokes	: 4.0
Check tolerance cm3/1000s.	: 7.5
Rated speed rpm	: 300
Rack travel in mm	3.50
Toterance mm	: + 0.10
Del. quantity	
cm3/1000 strokes	: 13.0
Tolerance cm3/1000 strokes	: +- 3.0
Check talerance	
cm3/1000s.	: + 6.0
Spreed	
Tolerance cm3/1000 strokes	: 4.5
Check tolerance	• • • • • • • • • • • • • • • • • • • •
7 (46-56)	— •
cm3/1000s.	: 7.5
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV	JECTION PUMP
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve	JECTION PUMP EL : 1169
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm	JECTION PUMP EL : 1169 : 6.45
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve	JECTION PUMP EL : 1169
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	JECTION PUMP EL : 1169 : 6.45
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	#EL : 1169 : 6.45 : + 0.10 : 300
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rom guide sleeve travel mm Tolerance mm Rated speed rom guide sleeve travel mm	EL: 1169: 6.45: +- 0.10: 300: 1.70
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	#EL : 1169 : 6.45 : + 0.10 : 300
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	EL: 1169: 6.45: +- 0.10: 300: 1.70
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL : 1169 : 6.45 : ← 0.10 : 300 : 1.70 : ← 0.10 : 1100
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	EL : 1169 : 6.45 : + 0.10 : 300 : 1.70 : + 0.10
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm	EL : 1169 : 6.45 : ← 0.10 : 300 : 1.70 : ← 0.10 : 1100 : 6.00 : ← 0.10
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	EL : 1169 : 6.45 : ← 0.10 : 300 : 1.70 : ← 0.10 : 1100 : 6.00
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL : 1169 : 6.45 : + 0.10 : 300 : 1.70 : + 0.10 : 1100 : 6.00 : + 0.10 : 364
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	EL : 1169 : 6.45 : ← 0.10 : 300 : 1.70 : ← 0.10 : 1100 : 6.00 : ← 0.10
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 1169 : 6.45 : + 0.10 : 300 : 1.70 : + 0.10 : 1100 : 6.00 : + 0.10 : 364 : 3.04
(B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	EL: 1169 : 6.45 : + 0.10 : 300 : 1.70 : + 0.10 : 1100 : 6.00 : + 0.10 : 364 : 3.04 : + 0.10

Tolerance mm : ← 0.10 Rated speed rpm : 1340 guide sleeve : 11.50 travel mm Tolerance mm : \leftarrow 0.50 GUIDE SLEEVE POSITION control lever position degree : -1
Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.60 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure hPa Del. quantity cm3/1000 strokes : 155.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1900 strokes : 4.0 Check tolerance cm3/1000s. : 7.5 CONTROL LEVER control lever position degree : 103.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.80
Rated speed rpm : 1165
Tolerance 1/min : ← 8 rack travel mm : 4.00
Rated speed rpm : 1265
Tolerance 1/min : + 15 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1350

LOW IDLE

control Lever

72.0 position degree : tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. :> 5.00

Testing:

Rated speed rpm : 300 3.50 rack travel mm : : + 0.10Tolerance mm

2.00 rack travel mm Rated speed rpm Tolerance 1/min : + 20

TORQUE CONTROL

Rated speed rpm : 1100 12.80 rack travel mm : + 0.05Tolerance mm

700 Rated speed rpm • rack travel mm 12.80 : : 12.80 : + 0.05 Tolerance ma

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

500 Rated speed rpm : Pressure hPa 900 12.80 rack travel mm : + 0.05Tolerance mm

500 Rated speed rpm Pressure hPa : 9.75 rack travel mm : + 0.10 Tolerance mm

MEASUREMENT

Rated speed rpm : 500

580 Pressure hPa : 12.40 rack travel mm : ← 0.10 Tolerance and

310 Pressure hPa rack travel mm 10.10 : **←** 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 700 Rated speed rpm :

Del. quantity

cm3/1000 strokes : 170.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

: + 6.0 cm3/1000s.

Aneroid pressure

500 Rated speed rpm :

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

100 Rated speed rpm : 100 rack travel mm : 18.00 Rated speed rpm : **←** 0.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 260.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm : 3.50 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 13.0 Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000S. : **←** 6.0

Spreed

Tolerance

cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 13.10.93 Test oil : ISO 4113

Combination No. : 0 401 846 981

Injection pump

Pump designation : PE6P110A720RS3243 EP type number : 0 411 816 770

Governor

Governer design. : RQV250...1100PA413

: -7

Governer no. : 0 421 814 073

Cust. part No. : 615.60.08.0283

Customer-spec. information

Customer : SNF

Motor : WD615.42/43

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : ← 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mma: 10.50 Tolerance mma: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.80 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 155.0

Tolerance + 1.0	guide sleeve travel mm : 2.42
Check tolerance	Tolerance mm : + 0.25
cm3/1000s. : +- 4.0	Rated speed rpm : 510 guide sleeve
Spreed	travel mm : 3.11 Tolerance mm : + 0.25
Tolerance	
cm3/1000 strokes : 4.0	Rated speed rpm : 1390 guide sleeve
Check tolerance cm3/1000s. : 7.5	travel mm : 11.50 Tolerance mm : +- 0.50
 ‡	
Rated speed rpm : 250	GUIDE SLEEVE POSITION
Rack travel in mm: 3.50	control lever
Tolerance mm : +- 0.10 +- Del. quantity +-	position degree : - 1 Rated speed rpm : 1260
cm3/1000 strokes : 13.0 +	
Tolerance + 3.0 + 3.0	Rack travel in mm : 11.80 Tolerance mm : + 1.30
Check tolerance +	
cm3/1000s. : + 6.0 + Spreed	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance + Cas/1000 strokes : 4.5	Rated speed rpm : 1100
Check tolerance	Aneroid pressure
cm3/1000s. : 7.5	hPa : - Del. quantity
+	cm3/1000 strokes : 155.0
(B) SETTING OF INJECTION PUMP + WITH GOVERNOR +	Tolerance cm3/1000 strokes : ← 1.0
+	Check tolerance
GUIDE SLEEVE TRAVEL	cm3/1000S. : ← 4.0 Spreed
	Tolerance
Rated speed rpm : 1177 + guide sleeve +	cm3/1000 strokes : 4.0 Check tolerance
travel mm : 8.75	cm3/1000s. : 7.5
+	
Rated speed rpm : 250 + guide sleeve +	CONTROL LEVER
travel mm : 1.13 + Tolerance mm : + 0.20 +	control lever
+	position degree : 106.0
Rated speed rpm : 824 guide sleeve	tolerance degree : +- 4.0
travel mm : 5.41	RATED SPEED
Tolerance mm : + 0.25	rack travel mm : 11.80 Rated speed rpm : 1165
Rated speed rpm : 356	Tolerance 1/min : + 5
guide sleeve † travel mm : 1.99 †	rack travel mm : 4.00
Tolerance mm : + 0.25	Rated speed rpm : 1255 Tolerance 1/min : +- 15
Rated speed rpm : 406	TOCCI GINC TARITY IV

rack travel mm Tolerance mm Rated speed rpm	: 0.50 : ← 0.50 : 1350
LOW IDLE	
control lever position degree tolerance degree	: 72.0 : ← 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 150
CRT mm min.	: > 5.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 250 : 5.50 : ← 0.10
Rated speed rpm rack travel mm	: 300 : 2.00
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1100 : 12.80 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 700 : 12.80 : ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 12.80 : ← 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 9.75 : ← 0.10
MEASUREMENT	

rack travel mea	: 12.40
Tolerance mm	: ← 0.10
Pressure hPa	: 310
rack travel mm	
Tolerance mm	: ← 0.05
Start interlock	
Rated cheed rom	: > 100
Rated speed rpm Rated speed rpm	: < 170
kated speed rpm	: < 170
Check	
speed 1/min	: > 80
Check	
speed 1/min	: < 190
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	
hPa	: -
Rated speed rpm	· · 700
Del. quantity	. ,
cm3/1000 strokes	: 170.0
	. 170.0
Tolerance	70
cm3/1000 strokes	: +- 3.0
Check tolerance	
cm3/1000s.	: +- 6.0
Ameroid pressure	
hPa	: -
Rated speed rpm	: 500
Del. quantity	• •
	• 120 D
cm3/1000 strokes	: 120.0
cm3/1000 strokes Tolerance	
cm3/1000 strokes Tolerance cm3/1000 strokes	: 120.0 : + 1.0
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: + 1.0
cm3/1000 strokes Tolerance cm3/1000 strokes	
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: + 1.0 : + 4.0
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm	: + 1.0 : + 4.0 -IVERY : 100
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL	: + 1.0 : + 4.0 :IVERY : 100
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm	: + 1.0 : + 4.0 -IVERY : 100
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm	: + 1.0 : + 4.0 -IVERY : 100 : 18.00
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity	: + 1.0 : + 4.0 : VERY : 100 : 18.00 : + 0.50
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: + 1.0 : + 4.0 : VERY : 100 : 18.00 : + 0.50
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: + 1.0 : + 4.0 : + 4.0 IVERY : 100 : 18.00 : + 0.50 : 260.0
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: + 1.0 : + 4.0 : + 4.0 IVERY : 100 : 18.00 : + 0.50 : 260.0
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: + 1.0 : + 4.0 : + 4.0 IVERY : 100 : 18.00 : + 0.50 : 260.0

Pressure hPa : 580

Rated speed rpm : 500

LOW IDLE

Rated speed rpm : 250 3.50 Rack travel in mm : Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 4.5 Check tolerance : 7.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 07.03.94 Test oil : ISO 4113

Combination No. : 0 401 849 755

Injection pump

Pump designation : PE10P110A920/5LS3164

EP type number : 0 411 819 708

6overnor

Governer design. : RQV300...1150PA549

: -6

6overner no. : 0 421 814 029

Cust. part No. :

Customer-spec. information Customer : KHD

Motor : EF10L513 Power KW : 278.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50
Tolerance mm: + 1.50

Firing order : 1-10-9-4-3-6

: - 5- 8- 7- 2

Phasing : 0-27-72-99-144-171 : -216-243-288-315

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 300

Rack travel in mm : 7.00
Tolerance mm : + 0.10
Del. quantity

cm3/1000 strokes : 15.0 Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : \leftarrow 5.0

Spreed

Setting point w/out bumper spring Tolerance cm3/1000 strokes : 4.5 Check tolerance Rated speed rpm : 200 : 7.5 cm3/1000s. CRT mm min. : > 10.10 (B) SETTING OF INJECTION PUMP Testina: WITH GOVERNOR 300 Rated speed rpm : 7.00 rack travel mm : : + 0.10 Tolerance mm GUIDE SLEEVE POSITION Rated speed rpm : 385 control lever TORQUE CONTROL position degree : -1 Rated speed rpm : 1290 Rated speed rpm : 800 rack travel mm : Rack travel in mm: 9.70 : + 0.05 Tolerance mm Tolerance mm : ← 1.30 ANEROID/ALTITUDE CONTROL LEVER COMPENSATOR TEST control lever position degree : 55.0 SETTING tolerance degree : + 4.0 Rated speed rpm : 500 Pressure hPa : 1200 rack travel mm : 11.75 control lever position degree : 123.0 tolerance degree : +- 4.0 Tolerance $max : \leftarrow 0.05$ 500 RATED SPEED Rated speed rpm : rack travel mm : 10.70 Pressure hPa rack travel mm : 10.75 Rated speed rpm : 1195 Tolerance 1/min : +-: +- 0.20 Tolerance mm MEASUREMENT rack travel mm : 4.00 Rated speed rpm : 1300
Tolerance 1/min : + 15 Rated speed rpm : 500 : 0.50 : + 0.50 Pressure hPa : rack travel mm : 420 rack travel mm : rack travel mm 11.00 Tolerance mm : + 0.10 Tolerance mm Rated speed rpm : 1450 : 450 Pressure hPa rack travel mm : 11.45 : +- 0.05 Tolerance mm LOW IDLE Start interlock control lever position degree : 90.0 Rated speed rpm :> 100 Rated speed rpm : < tolerance degree : + 4.0 220 control lever Check speed 1/min position degree : 19.0 : > 80 Check tolerance degree : + 4.0 speed 1/min : < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 450 Rated speed rpm : Del. quantity cm3/1000 strokes : 110.0

Tolerance

cm3/1000 strokes : \leftarrow 1.5

Check tolerance

cm3/1000S. : **←** 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity cm3/1000 strokes : 150.0

Tolerance

am3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : **←** 19.0

LOW IDLE

300 Rated speed rpm :

Rack travel in mm: 7.00 Tolerance mm : + 0.10 Del. quantity

cm3/1000 strokes : 15.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

: **←** 5.0 cm3/10000S.

Spreed Tolerance

cm3/1000 strokes : 4.5

Check tolerance

: 7.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.11.93 : ISO 4113 Test oil

Combination No. : 0 401 878 717

Injection pump

Pump designation: PE8P110A320LS3853-1

EP type number : 0 411 818 726

Governor

Governer design. : RSV400...1000P1A554

: 0 421 833 376 Governer no.

Sust. part No. : 9273514

Customer-spec. information Customer : LIEBHERR : D 9308 TI Motor Power KW : 288.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance *C : + 2.0

Overflow valve : 1 417 413 025

Iniet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

173.5 bar : **←** 1.5 Tolerance bar

: 1 680 750 089 Test lines

Outside diameter : 8.0

x inside diameter : 3.0 x length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : 4- 1.0

Prestroke mm 3,85 : +- 0.05 Tolerance mon

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance ran : + 1.50

Firing order : 1-8-7-2-6 : - 3- 5- 4

: 0-45-90-135-180 Phasing

: -225-270-315 : ← 0.30

Tolerance Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm 900 :

14.65 Rack travel in mm: Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 197.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s.

: + 4.0

Spreed

Tolerance cm3/1000 strokes	: 4.0	control position
Check tolerance	: 7.5	tolerance
		+ RATED SPE
		+ rack trav
	/22	+ Rated spe
Rated speed rpm	: 400	† Tolerance
Del. quantity cm3/1000 strokes	: 15.0	T rack trav
Tolerance	. 13.0	+ Rated spe
cm3/1000 strokes	: ← 3.0	Tolerance
Check tolerance		+
cm3/1000s.	: ← 6.0	+ rack trav
Spreed Tolerance		+ Tolerance + Rated spe
cm3/1000 strokes	: 6.0	T wated shi
Check tolerance		- rack trav
cm3/1000s.	: 10.0	+ Rated sp
		+ Tolerance
(B) SETTING OF IN	FIECTION DIME	İ
WITH GOVERNOR	SECTION FOR	I
		+
		+ LOW IDLE
GUIDE SLEEVE POSI	TION	Ī
SOTAL SCECAL LOGI		control
		position
control lever	7	+ tolerance
position degree	: - 3 : 800	I Sotting
Rated speed rpm	: 000	† Setting
Rack travel in mo	: 0.50	Rated sp
ioterance mm	: ← 0.20	rack tra
		Tolerance
FULL LOAD DELIVER	RY AT FULL LOAD STOP	Testing:
Rated speed rpm		+
varied speed this	• 900	I rack tra
	: 900	
Ineroid pressure	: 900 : 1500	+ Rated sp
Aneroid pressure nPa Del. quantity	: 1500	+ Rated sp
Aneroid pressure hPa Del. quantity cm3/1000 strokes	: 1500	Rated sp Tolerance
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance	: 1500 : 197.0	Rated sp Tolerance
Aneroid pressure hPa Del. quantity Cm3/1000 strokes Tolerance Cm3/1000 strokes	: 1500	rack tra
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1500 : 197.0 : ← 1.0	Rated sp Toleranc TORQUE C Rated sp rack tra
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1500 : 197.0	Rated sp Toleranc TORQUE C Rated sp rack tra
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 1500 : 197.0 : ← 1.0 : ← 4.0	TORQUE CORACTE TOLERANCE TORQUE CORACTE TOLERANCE Rated sp
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spread Tolerance cm3/1000 strokes	: 1500 : 197.0 : ← 1.0	Rated sp Tolerance TORQUE Contract transcord Rated sp Tolerance Rated sp Tack transcord Rated sp
Aneroid pressure hPa Del. quantity Cm3/1000 strokes Tolerance Cm3/1000 strokes Check tolerance Cm3/1000s. Spread Tolerance Cm3/1000 strokes Check tolerance	: 1500 : 197.0 : ← 1.0 : ← 4.0	Rated sport Tolerance
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 1500 : 197.0 : ← 1.0 : ← 4.0	Rated sport Tolerance TORQUE CORRECTED TOLERANCE Rated sport Tolerance Rated sport Tolerance Tolerance
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spread Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1500 : 197.0 : ← 1.0 : ← 4.0	Rated sport Tolerance TORQUE CORRECT TOLERANCE Rated sport Tolerance Rated sport Tolerance Rated sport Tolerance Rated sport Rated sport Tolerance
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 1500 : 197.0 : ← 1.0 : ← 4.0	Rated sp Toleranc TORQUE C Rated sp rack tra Toleranc Rated sp rack tra Toleranc

control lever position degree tolerance degree	: 100.0 : +- 4.0
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1000 : +- 15
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1100
rack travel mm Rated speed rpm Tolerance 1/min	
LOW IDLE	
control lever position degree tolerance degree	: 75.0 : + 4.0
	: +- 4.0
position degree tolerance degree	: + 4.0 out bumper spring
position degree tolerance degree Setting point w/o Rated speed rpm rack travel mm	: +- 4.0 out bumper spring : 400 : 5.70
position degree tolerance degree Setting point w/o Rated speed rpm rack travel mm Tolerance mm	: +- 4.0 out bumper spring : 400 : 5.70
position degree tolerance degree Setting point w/o Rated speed rpm rack travel mm Tolerance mm Testing: rack travel mm Rated speed rpm	: ← 4.0 out bumper spring : 400 : 5.70 : ← 0.10 : 2.60 : 520
position degree tolerance degree Setting point w/o Rated speed rpm rack travel mm Tolerance mm Testing: rack travel mm Rated speed rpm Tolerance 1/min TORQUE CONTROL Rated speed rpm rack travel mm	: + 4.0 out bumper spring : 400 : 5.70 : + 0.10 : 2.60 : 520 : + 30 : 900 : 14.65

CONTROL LEVER

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 600
Pressure hPa : 1500
rack travel mm : 14.65
Tolerance mm : + 0.05

Rated speed rpm : 600
Pressure hPa : rack travel mm : 13.65
Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 600

Pressure hPa : 710 rack travel mm : 13.90 Tolerance mm : + 0.10

Pressure hPa : 780 rack travel mm : 14.40 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

rack travel mm : 16.10 Tolerance mm : + 0.30

Aneroid pressure

hPa : Rated speed rpm : 600
Del. quantity

cm3/1000 strokes : 172.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0 Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50

Tolerance mm : + 0.50 Del. quantity

cm3/1000 strokes : 160.0

Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 400

Del. quantity

cm3/1000 strokes : 15.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

 $\frac{1}{2}$ cm³/1000s. : +- 6.0

Spreed

Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. : 10.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 24.01.94 Test oil : ISO 4113

Combination No. : 0 402 046 339

Injection pump

Pump designation : PES6P110A720LS524 EP type number : 0 412 016 073

Governor

Governer design. : RQ750PA661-1 Governer no. : 0 421 801 330

Cust. part No. : 2-7966

Customer spec. information Customer : MAN Motor : D2866E Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. ber : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

.

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.55
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50
Tolerance mm : +- 1.50

Firing order : 6-2-4-1-5-

: 3

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : \leftarrow 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 13.45
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 144.5

Tolerance

cm3/1000 strokes : \leftarrow 1.5

		+ Tolerance 1/min	: + 4
Check tolerance cm3/1000s.	: + 4.0	+ rack travel mma	: 4.00
Spreed		rack travel mm Tolerance mm	: 0.50 : + 0.50
Tolerance		+ Rated speed rpm	: 950
cm3/1000 strokes	: 4.0	Rated speed rpm	: 751
Check tolerance cm3/1000s.	: 7.5	rack travel mm	: 12.40
		Rated speed rpm Tolerance 1/min	: 805 : + 4
Rated speed rpm	: 250	rack travel mm	: 4.00 : 0.50
Rack travel in mm	: 6.10	+ rack travel mm + Tolerance mm	: + 0.50
Tolerance mm Del. quantity	: + 0.10	Rated speed rpm	
cm3/1000 strokes	: 17.5	+	7100
	: + 2.5	Rated speed rpm rack travel mm	: 752 : 12.40
Check tolerance cm3/1000s.	: +- 5.0	Rated speed rpm	: 806
Spreed		+ Tolerance 1/min	
Tolerance		+ rack travel mm	: 4.00
cm3/1000 strokes Check tolerance	: 4.5	+ rack travel mm	: 0.50
cm3/1000s.	: 7.5	Tolerance mm	: + 0.50
		Rated speed rpm	: 950
(D) CETTING OF THE	ECTION DIMO	†	
(B) SETTING OF INJ	ECTION PUMP	+ Rated speed rom	: 753
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP	Rated speed rpm rack travel mm	: 753 : 12.40
WITH GOVERNOR		rack travel mm Rated speed rpm	: 12.40 : 807
WITH GOVERNOR	AT FULL LOAD STOP	rack travel mm Rated speed rpm Tolerance 1/min	: 12.40 : 807 : +- 4
WITH GOVERNOR FULL LOAD DELIVERY		rack travel mm Rated speed rpm	: 12.40 : 807
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure	AT FULL LOAD STOP	rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm	: 12.40 : 807 : + 4 : 4.00 : 0.50
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa	AT FULL LOAD STOP	rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm	: 12.40 : 807 : + 4 : 4.00 : 0.50 : + 0.50
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes	AT FULL LOAD STOP : 700	rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm	: 12.40 : 807 : + 4 : 4.00 : 0.50 : + 0.50
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hFa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	AT FULL LOAD STOP : 700 : - : 144.5 : +- 1.5	rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm	: 12.40 : 807 : + 4 : 4.00 : - 0.50 : + 0.50 : 950
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	AT FULL LOAD STOP : 700 : - : 144.5 : +- 1.5	rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm Rated speed rpm rack travel mm	: 12.40 : 807 : + 4 : 4.00 : 0.50 : + 0.50 : 950 : 754 : 12.40
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hFa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	AT FULL LOAD STOP : 700 : - : 144.5 : +- 1.5	rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm	: 12.40 : 807 : + 4 : 4.00 : 0.50 : + 0.50 : 950 : 754 : 12.40 : 808 : + 4
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	AT FULL LOAD STOP : 700 : - : 144.5 : + 1.5 : + 4.0	rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm Rated speed rpm rack travel mm Rated speed rpm Rated speed rpm	: 12.40 : 807 : + 4 : 4.00 : - 0.50 : + 0.50 : 950 : 754 : 12.40 : 808 : + 4
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	AT FULL LOAD STOP : 700 : - : 144.5 : + 1.5 : + 4.0 : 4.0	Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm rack travel mm Tolerance 1/min rack travel mm	: 12.40 : 807 : + 4 : 4.00 : - 0.50 : + 0.50 : 50 : 754 : 12.40 : 808 : + 4 : 4.00
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	AT FULL LOAD STOP : 700 : - : 144.5 : + 1.5 : + 4.0 : 4.0	Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm	: 12.40 : 807 : + 4 : 4.00 : - 0.50 : + 0.50 : 950 : 754 : 12.40 : 808 : + 4 : 4.00 : 0.50
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	AT FULL LOAD STOP : 700 : - : 144.5 : +- 1.5 : +- 4.0 : 4.0 : 7.5	Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm rack travel mm Tolerance 1/min rack travel mm	: 12.40 : 807 : + 4 : 4.00 : - 0.50 : + 0.50 : 754 : 12.40 : 808 : + 4 : 4.00 : - 0.50 : + 0.50 : + 0.50
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	AT FULL LOAD STOP : 700 : - : 144.5 : +- 1.5 : +- 4.0 : 4.0 : 7.5	Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm rack travel mm rack travel mm rack travel mm Tolerance 1/min rack travel mm Tolerance mm	: 12.40 : 807 : + 4 : 4.00 : - 0.50 : + 0.50 : 754 : 12.40 : 808 : + 4 : 4.00 : - 0.50 : + 0.50 : + 0.50
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000s. ASSEMBLY GOVERNOR	AT FULL LOAD STOP : 700 : - : 144.5 : + 1.5 : + 4.0 : 4.0 : 7.5 SETTING	Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm rack travel mm Rated speed rpm rack travel mm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm	: 12.40 : 807 : + 4 : 4.00 : 0.50 : + 0.50 : 950 : 754 : 12.40 : 808 : + 4.00 : + 0.50 : + 0.50 : 950
FULL LOAD DELIVERY Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	AT FULL LOAD STOP : 700 : - : 144.5 : +- 1.5 : +- 4.0 : 4.0 : 7.5 SETTING : 750	Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm rack travel mm rack travel mm rack travel mm Tolerance 1/min rack travel mm Tolerance mm	: 12.40 : 807 : + 4 : 4.00 : - 0.50 : + 0.50 : 950 : 754 : 12.40 : 808 : + 4 : 4.00 : + 0.50 : 950 : 755

Tolerance 1/min : + 4 rack travel mm : 4.00

rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 950

LOW IDLE

Testing:

Rated speed rpm : 250 rack travel mm : 6.10 Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 13.45 Tolerance mm : + 0.05

STARTING FUEL DELIVERY

Del. quantity

cm3/1000 strokes : 100.0

Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance

cm3/1000S. : +- 14.0

LOW IDLE

Rated speed rpm : 250

Rack travel in mm: 6.10
Tolerance mm: + 0.10

Del. quantity

cm3/1000 strokes : 17.5

Tolerance

cm3/1900 strokes : + 2.5

Check tolerance

cm3/1000\$. : +- 5.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance

cm3/1000s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 24.01.94 Test oil : ISO 4113

Combination No. : 0 402 046 810

Injection pump

Pump designation : PES6P120A720LS3229

EP type number : 0 412 026 733

Governor

Governer design. : RQ750PA661-4 Governer no. : 0 421 801 361

Cust. part No. :

Customer—spec. information
Customer : MAN
Motor : D2866TE
Power KW : 190.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure par : 26.0 Tolerance par : + 1.0

Prestroke mm : 3.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : _6- 2- 4- 1- 5-

: 3

Phasing : C-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 11.25 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 232.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance	: + 4.0	ASSEMBLY GOVERNOR	SETTING
cm3/1000s.	+ 4.0	Rated speed rpm	: 750
Spreed	I	rack travel mm	: 10.20
Tolerance cm3/1000 strokes	: 5.0	Rated speed rpm Tolerance 1/min rack travel mm	: 786 : ← 4 : 4.00
Check tolerance cm3/1000s.	: 9.0	rack travel man Tolerance man	: 0.50 : ← 0.50 : 950
	I	Rated speed rpm	: 950
Rated speed rpm	: 300	Rated speed rpm	: 751
Rack travel in mm		rack travel mm	: 10.20
Tolerance mm	: ← 0.20 +		707
Del. quantity cm3/1000 strokes	: 27.0	Rated speed rpm Tolerance 1/min rack travel man	: 787 : +- 4 : 4.00
Tolerance cm3/1000 strokes	: +- 3.0 I	reck travet isa	4.00
Check tolerance	1	rack travel mm	: 0.50
cm3/1000s.	: + 6.0 }	Tolerance mm	: ← 0.50
Spreed	†	Rated speed rpm	: 950
Tolerance cm3/1000 strokes	: 8.0	•	
Check tolerance		Rated speed rpm	: 752
cm3/1000s.	: 12.0	rack travel mm	: 10.20
	4	Rated speed rpm	: 788
(B) SETTING OF IN	JECTION PUMP +	Tolerance 1/min	
WITH GOVERNOR	†	rack travel mm	: 4.00
	I	rack travel mm	: 0.50
		Tolerance mm	: +- 0.50
FULL LOAD DELIVER	V AT EUL LOAD CTOD		
	TAI FOLL LOAD STOP	Rated speed rpm	: 950
Rated speed rpm	+		
Aneroid pressure	+	Rated speed rpm	: 753
Aneroid pressure hPa	+		: 753
Aneroid pressure hPa Del. quantity cm3/1000 strokes	: 700	Rated speed rpm rack travel mm Rated speed rpm	: 753 : 10.20 : 789
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance	: 700 : - : 232.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min	: 753 : 10.20 : 789 : +- 4
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 700 : - : 232.0	Rated speed rpm rack travel mm Rated speed rpm	: 753 : 10.20 : 789 : + 4
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 700 : - : 232.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm	: 753 : 10.20 : 789 : + 4 : 4.00 : 0.50
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 700 : - : 232.0 : ← 1.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm	: 753 : 10.20 : 789 : ← 4 : 4.00 : 0.50 : ← 0.50
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 700 : - : 232.0 : + 1.0 : ← 4.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm	: 753 : 10.20 : 789 : ← 4 : 4.00 : 0.50 : ← 0.50
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 700 : - : 232.0 : + 1.0 : ← 4.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm	: 753 : 10.20 : 789 : ← 4 : 4.00 : 0.50 : ← 0.50
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 700 : - : 232.0 : ← 1.0 : ← 4.0 : 5.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm	: 753 : 10.20 : 789 : +- 4 : 4.00 : 0.50 : +- 0.50 : 950
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 700 : - : 232.0 : ← 1.0 : ← 4.0 : 5.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm	: 753 : 10.20 : 789 : + 4 : 4.00 : 0.50 : + 0.50 : 950
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 700 : - : 232.0 : ← 1.0 : ← 4.0 : 5.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm rack travel mm	: 753 : 10.20 : 789 : + 4 : 4.00 : 0.50 : + 0.50 : 950 : 754 : 10.20
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 700 : - : 232.0 : ← 1.0 : ← 4.0 : 5.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm rack travel mm	: 753 : 10.20 : 789 : + 4 : 4.00 : 0.50 : + 0.50 : 50 950 : 754 : 10.20 : 790
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. RATED SPEED	: 700 : - : 232.0 : ← 1.0 : ← 4.0 : 5.0	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm rack travel mm	: 753 : 10.20 : 789 : + 4 : 4.00 : 0.50 : + 0.50 : 950 : 754 : 10.20 : 790 : + 4
Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 700 : - : 232.0 : + 1.0 : + 4.0 : 5.0 : 9.0 : 0.50 : + 0.50	Rated speed rpm rack travel mm Rated speed rpm Tolerance 1/min rack travel mm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm rack travel mm Rated speed rpm rack travel mm	: 753 : 10.20 : 789 : + 4 : 4.00 : 0.50 : + 0.50 : 950 : 754 : 10.20 : 790 : + 4

Rated speed rpm : 755
rack travel mm : 791
Tolerance 1/min : + 4

rack travel mm : 0.50
Tolerance mm : 0.50
Rated speed rpm : 950

4.00

LOW IDLE

rack travel mm

Testing:

Rated speed rpm : 300 rack travel mm : 4.70 Tolerance mm : + 0.20

TORQUE CONTROL
Reted speed rpm : 700
rack travel mm : 11.25
Tolerance mm : + 0.05

LOW IDLE

Rated speed rpm : 300

Reck travel in mm : 4.70 Tolerance mm : + 0.20

Del. quantity

cm3/1000 strokes : 27.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Spreed

Tolerance cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 24.01.94 : ISO 4113

Combination No. : 0 402 046 814

Injection pump

Pump designation : PES6P120A720LS3229

EP type number : 0 412 026 733

Governor .

Soverner design. : RQ750PA945 Soverner no. : 0 421 801 512

Cust. part No. : 2-7970

Customer-spec. information Customer : MAN Motor : D2866LE Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C temp. °C : 40 Tolerance °C : +- 2.0 40

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

: 1 683 901 019 assembly

Opening pressure

: 208.5 bar bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : ← 1.0

Prestroke mm : 3.85
Tolerance mm : + 0.05

Check

tolerance m : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

firing order : 6-2-4-1-5-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 12.55 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 282.0

Tolerance

cm3/1000 strokes : +- 1.0

Rated speed rpm : 750 rack travel mm : 11.50	Check tolerance cm3/1000s. : +- 4.0	ASSEMBLY GOVERNOR SETTING
Tolerance cm3/1000 strokes : 5.0 Tolerance 1/min : + 4		
Check tolerance cm3/1000S.	Spreed	+ rack travet mm : 11.30
Rated speed rpm : 300 Rated speed rpm : 751 rack travel mm : 0.50 Rated speed rpm : 300 Rated speed rpm : 751 rack travel mm : 11.50		+ Tolerance 1/min : +- 4
Rack travel in mm : 4.40 Tolerance mm : ← 0.30 Del. quantity cm3/1000 strokes : 27.0 Tolerance 1/min : ← 4.00 Check tolerance cm3/1000s. : ← 6.0 Spreed Tolerance cm3/1000s. : ← 6.0 Spreed Tolerance cm3/1000s. : ← 6.0 Rated speed rpm : 792 Tolerance 1/min : ← 4.00 Rated speed rpm : 792 Tolerance 1/min : ← 4.00 Rated speed rpm : 0.50 Rated speed rpm : 0.50 Rated speed rpm : 950 Rated speed rpm : 752 rack travel mm : 0.50 Rated speed rpm : 752 rack travel mm : 0.50 Rated speed rpm : 793 Tolerance 1/min : ← 4 rack travel mm : 0.50 Rated speed rpm : 793 Tolerance 1/min : ← 4 rack travel mm : 0.50 Rated speed rpm : 755 Rated speed rpm : 755 Tolerance mm : 11.50 Rated speed rpm : 755 Tolerance mm : 11.50 Rated speed rpm : 755 Tolerance rpm : 755 Tolerance rpm : 794 Tolerance rpm : 794 Tolerance rpm : 795 Tolerance rpm : 755 Rated speed rpm : 755 Rated speed rpm : 755 Rated speed rpm : 755 Rated speed rpm : 755 Rated speed rpm : 755 Rated speed rpm : 755 Rated speed rpm : 755 Rated speed rpm : 755 Rated speed rpm : 756 Rated speed rpm : 756 Rated speed rpm : 757 Rated speed rpm : 756 Rated speed rpm : 757 Rated speed rpm : 757 Rated speed rpm : 758 Rated speed rpm : 756 Rated speed rpm : 757 Rated speed rpm : 757 Rated speed rpm : 757 Rated speed rpm : 758 Rated speed rpm : 756 Rated speed rpm : 757 Rated speed rpm : 757 Tolerance rpm : 758 Rated speed rpm : 757 Rated speed rpm : 757 Tolerance rpm : 758 Rated speed rpm : 758 Rated speed rpm : 758 Rated speed rpm : 758 Rated speed rpm : 757 Rated speed rpm : 758 Rated speed rpm : 758 Rated speed rpm : 758 Rated speed rpm : 758 Rated speed rpm : 758 Rated speed rpm : 758 Rated speed rpm : 758 Rated speed rpm : 758 Rated speed rpm : 759 Tolerance rpm : 759 Tolerance rpm : 759 Tolerance rpm : 759 Tolerance rpm : 759 Tolerance rpm : 750 Rated speed rpm : 755 Rated speed rpm : 755 Rated speed rpm : 755 Rated speed rpm : 755		Tolerance mm : + 0.50
Rack travel in mm :	Rated speed rpm : 300	‡
Tolerance mm : → 0.30 Del. quantity cm3/1000 strokes : 27.0 Tolerance cm3/1000 strokes : → 3.0 Check tolerance cm3/1000s. : → 6.0 Spreed Tolerance cm3/1000s trokes : 8.0 Check tolerance cm3/1000s. : → 6.0 Spreed Tolerance mm : → 0.50 Rated speed rpm : 0.50 Rated speed rpm : 0.50 Rated speed rpm : 752 rack travel mm : 11.50 Rated speed rpm : 752 rack travel mm : 11.50 Rated speed rpm : 793 Tolerance 1/min : → 4 rack travel mm : 0.50 Rated speed rpm : 793 Tolerance 1/min : → 4 rack travel mm : 0.50 Tolerance 1/min : → 4 rack travel mm : 0.50 Rated speed rpm : 753 rack travel mm : 11.50 Rated speed rpm : 753 rack travel mm : 11.50 Rated speed rpm : 754 Tolerance 1/min : → 4 Tolerance 1/min : → 4 Tolerance mm : 0.50 Tolerance mm : 0.50 Tolerance mm : 0.50 Tolerance mm : → 0.50 Rated speed rpm : 754 rack travel mm : 0.50 Rated speed rpm : 755 Rated speed rpm : 754 rack travel mm : 0.50 Rated speed rpm : 755 Rated speed rpm : 756 Rated speed rpm : 757 Rated speed rpm : 756 rack travel mm : 0.50 Rated speed rpm : 756 Rated speed rpm : 757 rack travel mm : 0.50 Rated speed rpm : 756 Rated speed rpm : 757 rack travel mm : 0.50 Rated speed rpm : 756 rack travel mm : 0.50 Rated speed rpm : 757 rack travel mm : 0.50 Rated speed rpm : 758 rack travel mm : 0.50 Rated speed rpm : 757 rack travel mm : 0.50 Rated speed rpm : 758 rack travel mm : 0.50 Rated speed rpm : 757 rack travel mm : 0.50 Rated speed rpm : 756 rack travel mm : 0.50 Rated speed rpm : 756 rack travel mm : 0.50 Rated speed rpm : 756 rack travel mm : 0.50		
Tolerance Tol		+ rack travel mm : 11.50
Tolerance cm3/1000 strokes : + 3.0		
Check toterance cm3/1000s. : + 6.0		
Check tolerance Cm3/1000S. : + 6.0 Tolerance mm : + 0.50		Track travet inti : 4.00
Rated speed rpm : 950	Check tolerance	
Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR Rated speed rpm : 793 Tolerance 1/min : + 4 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 753 Rated speed rpm : 753 Rated speed rpm : 753 Rated speed rpm : 753 Rated speed rpm : 753 Rated speed rpm : 753 rack travel mm : 11.50 Rated speed rpm : 753 rack travel mm : 11.50 Rated speed rpm : 753 rack travel mm : 11.50 Rated speed rpm : 754 rack travel mm : 4.00 Rated speed rpm : 754 rack travel mm : 4.00 Rated speed rpm : 754 rack travel mm : 0.50 Tolerance cm3/1000s. : + 4.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED RATED SPEED Rated speed rpm : 754 rack travel mm : 11.50 Rated speed rpm : 754 rack travel mm : 755 Tolerance 1/min : + 4 rack travel mm		
Check tolerance Check tolerance Check tolerance Check tolerance Chair / 1000s. 12.0 Rated speed rpm : 752 rack travel mm : 11.50 Rated speed rpm : 793 Tolerance 1/min : + 4 WITH GOVERNOR Rated speed rpm : 0.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : -		+ Rated speed rpm : 95U
Rated speed rpm : 752 11.50 Rated speed rpm : 752 11.50		Ţ
(B) SETTING OF INJECTION PUMP WITH GOVERNOR Rated speed rpm : 793 Tolerance 1/min : + 4 rack travel mm : 4.00 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 700 Aneroid pressure hPa : - Rated speed rpm : 753 hPa : - Rated speed rpm : 71.50 Pel. quaritity cm3/1000 strokes : 282.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Tolerance mm : + 0.50 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm	Check tolerance	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	cm3/1000s. : 12.0	† rack travel mm : 11.50
(B) SETTING OF INJECTION PUMP WITH GOVERNOR Tolerance 1/min :		Rated speed rpm : 793
rack travel mm		+ Tolerance 1/min : + 4
Tolerance nmm	WITH GOVERNOR	rack travel mm : 4.00
Tolerance nmm		rack travel mm : 0.50
Rated speed rpm : 700 Aneroid pressure hPa : -		+ Tolerance mm : + 0.50
Aneroid pressure hPa : - Del. quaritity cm3/1000 strokes : 282.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 5.0 Rated speed rpm : 794 Tolerance rack travel mm : 4.00 Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 Rated speed rpm : 754 rack travel mm : 11.50 Rated speed rpm : 755 Rated speed rpm : 754 rack travel mm : 11.50 Rated speed rpm : 795 Tolerance 1/min : + 4 rack travel mm : 4.00 Tolerance mm : + 0.50 Rated speed rpm : 795 Tolerance 1/min : + 4 rack travel mm : 4.00 Tolerance mm : + 950 Rated speed rpm : 7050 rack travel mm : 0.50 rack travel mm : 4.00	FULL LOAD DELIVERY AT FULL LOAD STOP	+ Rated speed rpm : 950
Aneroid pressure hPa : - Del. quaritity cm3/1000 strokes : 282.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 5.0 Rated speed rpm : 794 Tolerance rack travel mm : 4.00 Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 Rated speed rpm : 754 rack travel mm : 11.50 Rated speed rpm : 755 Rated speed rpm : 754 rack travel mm : 11.50 Rated speed rpm : 795 Tolerance 1/min : + 4 rack travel mm : 4.00 Tolerance mm : + 0.50 Rated speed rpm : 795 Tolerance 1/min : + 4 rack travel mm : 4.00 Tolerance mm : + 950 Rated speed rpm : 7050 rack travel mm : 0.50 rack travel mm : 4.00	Rated speed roa : 700	Ī
Del. quantity cm3/1000 strokes : 282.0 Rated speed rpm : 794 Tolerance Tolerance 1/min : ← 4 rack travel mm : 4.00 Check tolerance cm3/1000s. : ← 4.0 rack travel mm : 0.50 Spreed Tolerance mm : ← 0.50 Tolerance Rated speed rpm : 950 Check tolerance Rated speed rpm : 754 cm3/1000s. : 9.0 Rated speed rpm : 754 rack travel mm : 11.50 RATED SPEED Rated speed rpm : 795 Tolerance 1/min : ← 4 rack travel mm : 4.00 Tolerance mm : ← 0.50 rack travel mm : 4.00 Rated speed rpm : 795 rack travel mm : 4.00 Tolerance mm : ← 0.50 rack travel mm : 4.00 Rated speed rpm : 795 rack travel mm : 4.00	Aneroid pressure	
Rated speed rpm : 794 Tolerance Tolerance 1/min : + 4 Cm3/1000 strokes : + 1.0 rack travel mm : 4.00 Check tolerance Cm3/1000S.		† rack travel mm : 11.50
Tolerance cm3/1000 strokes : + 1.0 Check colerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED RATED SPEED Rated speed rpm : 754 rack travel mm : 11.50 Rated speed rpm : 795 Tolerance 1/min : + 4 rack travel mm : 795 Tolerance 1/min : + 4 rack travel mm : 0.50 rack travel mm : 4.00 Rated speed rpm : 795 Tolerance 1/min : + 4 rack travel mm : 4.00 rack travel mm : 0.50 rack travel mm : 0.50 rack travel mm : 0.50		Rated speed row : 794
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cm3/1000s. : + 4.0 rack travel mm : 0.50 Spreed Tolerance mm : + 0.50 Tolerance Rated speed rpm : 950 Check tolerance Rated speed rpm : 754 cm3/1000s. : 9.0 Rated speed rpm : 754 rack travel mm : 11.50 RATED SPEED Rated speed rpm : 795 rack travel mm : 4.00 Tolerance mm : + 0.50 Rated speed rpm : 4.00 rack travel mm : 0.50 rack travel mm : 0.50		+ rack travel mm : 4.00
Tolerance mm : + 0.50		†
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Check tolerance cm3/1000s. : 9.0		+ Tolerance mm : + 0.50
cm3/1000S. : 9.0 Rated speed rpm: 754 rack travel mm: 11.50 RATED SPEED Rated speed rpm: 795 Tolerance 1/min: + 4 rack travel mm: 4.00 rack travel mm: : 0.50 Rated speed rpm: 950 rack travel mm: 0.50	Spreed Tolerance	+ Tolerance mm : + 0.50
rack travel mm : 0.50	Spreed Tolerance cm3/1000 strokes : 5.0	+ Tolerance mm : + 0.50
rack travel mm : 0.50	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	Tolerance mm : + 0.50 Rated speed rpm : 950 Rated speed rpm : 754
rack travel mm : 0.50 rack travel mm : 4.00 Tolerance mm : + 0.50 Rated speed rpm : 950 rack travel mm : 0.50	Spreed Tolerance cm3/1000 strokes: 5.0 Check tolerance cm3/1000s. : 9.0	Tolerance mm : + 0.50 Rated speed rpm : 950 Rated speed rpm : 754 rack travel mm : 11.50
Rated speed rpm : 950 rack travel mm : 0.50	Spreed Tolerance cm3/1000 strokes: 5.0 Check tolerance cm3/1000s. : 9.0	Tolerance mm : + 0.50 Rated speed rpm : 950 Rated speed rpm : 754 rack travel mm : 11.50 Rated speed rpm : 795
	Spreed Tolerance cm3/1000 strokes: 5.0 Check tolerance cm3/1000S.: 9.0 RATED SPEED rack travel mm : 0.50	Tolerance mm : + 0.50 Rated speed rpm : 950 Rated speed rpm : 754 rack travel mm : 11.50 Rated speed rpm : 795 Tolerance 1/min : + 4
	Spreed Tolerance cm3/1000 strokes: 5.0 Check tolerance cm3/1000s.: 9.0 RATED SPEED rack travel mm : 0.50 Tolerance mm : + 0.50	Tolerance mm : + 0.50 Rated speed rpm : 950 Rated speed rpm : 754 rack travel mm : 11.50 Rated speed rpm : 795 Tolerance 1/min : + 4 rack travel mm : 4.00

Rated speed rpm : 950

Rated speed rpm : 755 rack travel mm : 11.50

Rated speed rpm : 796
Tolerance 1/min : + 4
rack travel mm : 4.00

rack travel mm : 0.50 Tolerance mm : → 0.50 Rated speed rpm : 950

LOW IDLE

Testing:

Rated speed rpm : 300 rack travel mm : 4.40 Tolerance mm : +- 0.30

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 12.55 Tolerance mm : + 0.05

LOW IDLE

Rated speed rpm : 300

Rack travel in mm : 4.40 Tolerance mm : + 0.30

Del. quantity

cm3/1000 strokes : 27.0

Tolerance

cm3/1000 strokes : ← 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

End of test specification sheet

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Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 16.06.93 Test oil : ISO 4113

Combination No. : 0 402 046 822

Injection pump

Pump designation : PES6P110A320RS3278 EP type number : 0 412 016 735

Governor

Governer design. : RQ750PA1000 Governer no. : 0 421 801 584

Cust. part No. :

Customer spec. information

Customer : RVI

Motor : MIDR 060226

Power KW : 129.0

TEST BENCH REQUIREMENTS

Inlet line : 1.4

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar: 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 0.50

CRT ZERO POSITION

Rack travel in mm: 14.15
Tolerance mm: + 0.05

BASIC SETTING

Rated speed rpm : 700

Rated speed rpm	: 275	+ rack travel mm : −13.65
• • •		Tolerance mm : +- 0.55
Rack travel in m	■: -6 .65	Rated speed rpm : 900
Tolerance am		
Del. quantity	0.13	1
cm3/1000 strokes	. 15 5	T Poted aread non 1 752
	: 13.3	Rated speed rpm : 752
Tolerance	. 25	├ rack travel man : -1.00
cm3/1000 strokes		†
Check tolerance		Rated speed rpm : 794
cm3/1000s.	: ← 5.0	Tolerance 1/min : +- 4
Spreed		+ rack travel mm : -10.10
Tolerance		
cm3/1000 strokes	: 4.5	rack travel mm : -13.65
Check tolerance		Tolerance mm : + 0.55
cm3/1000s.	: 7.5	+ Rated speed rpm : 900
		. †
		+
(B) SETTING OF II	NUECTION PUMP	Rated speed rpm : 753 - rack travel mm : -1.00
WITH GOVERNOR		→ rack travel mm : -1.00
		Rated speed rpm : 795
CUTAE OLESSIE TRA	451	Tolorope 4/pin . 175
GUIDE SLEEVE TRAN	/EL	+ Tolerance 1/min : +- 4
		+ rack travel mm : -10.10
Rated speed rpm	: 760	+
guide sleeve		∔ rack travel mm : -13.65
travel ma	: 4.31	Tolerance mm : + 0.55
Tolerance mm	: ← 0.10	+ Rated speed rpm : 900
TOTAL GRICE INF	0.10	I Marca speed i più : 700
Date of an east one	. 045	T
Rated speed rpm	: 815	Topological supplies 25/
guide sleeve		+ Rated speed rpm : 754
guide sleeve travel mm	: 10.00	+ rack travel mm : -1.00
Tolerance mm	: ← 0.20	
		+ Rated speed rpm : 796
Rated speed rpm	: 870	+ Tolerance 1/min : + 4
guide sleeve	. 0.0	+ rack travel mm : -10.10
	: 11.50	T 180% CI daec imin . 10.10
travel mm		T 200 August 27 /5
Tolerance im	: ← 0.50	- rack travel num : -13.65
		+ Tolerance mm : +- 0.55
		+ Rated speed rpm : 900
ASSEMBLY GOVERNO	R SETTING	}
		+
Rated speed rpm	; 750	Rated speed rpm : 755
rack travel mm		+ rack travel mm : -1.00
rack travet mm	1.00	T IQUN LIGYEL HIM . TIOU
orand 1 4	. 300	T Dated aread area a 707
Rated speed rpm		+ Rated speed rpm : 797
Tolerance 1/min		+ Tolerance 1/min : +- 4
rack travel mm	: -10.10	→ rack travel mm : -10.10
		+
rack travel mm	: -13.65	∔ rack travel mm : -13.65
Tolerance mm		+ Tolerance mm : + 0.55
Detect enced som		Rated speed rpm : 900
Rated speed rpm	. 700	T nated speed (hill . 700
		Ť
		+ =
Rated speed rpm		+ LOW IDLE
rack travel mm		+
		Testing:
Dated enood are	: 793	1
Rated speed rpm		Dated speed man + 275
Tolerance 1/min		+ Rated speed rpm : 275
rack travel mm	: -10.10	rack travel mm : -6.65 Tolerance mm : + 0.15
		+ Tolerance mm : + 0.15
		•

TORQUE CONTROL

Rated speed rpm : 700

LOW IDLE

Rated speed rpm : 275

Rack travel in mm: -6.65 Tolerance ma: \leftarrow 0.15 Del. quantity cm3/1000 strokes : 15.5

Tolerance

cm3/1000 strokes : + 2.5

Check tolerance

cm3/1000s. : +- 5.0

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance cm3/1000s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.93 Test oil : ISO 4113

Combination No. : 0 402 046 838

Infection pump

Pump designation : PES6P100A320LS3306 EP type number : 0 412 006 703

Governor

Governer design. : RQV350...1200PA1042K

Governer no. : 0 421 815 320

Cust. part No. : 1819913091

Customer—spec. information Customer : NAVISTAR Motor : DTA-466 Power KW : 172.0

TEST BENCH REQUIREMENTS

Inlet line : 2.4

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : 2.8

Overflow quantity

min. L/h : 250
Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 23.0 Tolerance bar : - 1.0

Prestroke mm : 3.00 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 15.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : \leftarrow 0.75

Start of delivery blocking

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 800

Rack travel in mm : 13.55
Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 148.5	+ Tolerance + cm3/1000 strokes : +- 1.0
140.5	- Check tolerance
Tolerance	+ cm3/1000s. : + 3.0
cm3/1000 strokes : + 1.0	Spreed
	Tolerance
Check tolerance	- cm3/1000 strokes : 8.0
cm3/1000s. : + 3.0	- Check tolerance
	- cm3/1000s. : 12.0
Spreed	+
Tolerance	
cm3/1000 strokes : 8.0	CONTROL LEVER
districts . G.5	T CONTINUE CEREIN
Check tolerance	
cm3/1000s. : 12.0	position degree : 66.0
1 12.0	+ tolerance degree : +- 4.0
	totel and degited . The
	- control lever
Rated speed rpm : 350	position degree : 120.0
	+ tolerance degree : + 4.0
Rack travel in mm: 6.10	+
Tolerance mm : + 0.10	A RATED SPEED
Del. quantity	rack travel mm : 13.90
cm3/1000 strokes : 15.0	Rated speed rpm : 1265
Talerance	Tolerance 1/min : + 15
cm3/1000 strokes : + 2.0	1
Check tolerance	rack travel mma : 4.00
cm3/1000s. : + 4.5	+ Rated speed rpm : 1445
Spreed	+ Tolerance 1/min : + 5
Tolerance	1
cm3/1000 strokes : 4.0	+ rack travel mm : 0.50
Check tolerance	+ Tolerance mm : $+$ 0.50
cm3/1000s. : 6.5	Rated speed rpm : 1550
	+
	+
(a) SETTING OF INJECTION PUMP	†
WITH GOVERNOR	LOW IDLE
	I LOW IDLE
	I
GUIDE SLEEVE POSITION	control lever
TO THE TENED OF THE PARTY OF TH	position degree : 78.0
	tolerance degree : + 4.0
control lever	+
position degree : -1	+ control lever
Rated speed rpm : 1440	+ position degree : 21.0
	tolerance degree : + 4.0
Rack travel in mm : 10.00	+
Tolerance mm : + 3.00	Setting point w/out bumper spring
	+
	+ Rated speed rpm : 275
FULL LOAD DELIVERY AT FULL LOAD STOP	+
	+ CRT mm min. : > 7.60
Rated speed rpm : 800	+
Aneroid pressure	Testing:
hPa : -	+
Del. quantity	Rated speed rpm : 350
cm3/1000 strokes : 148.5	rack travel mm : 6.10 Tolerance mm : + 0.10
	+ Tolerance mm : + 0.10

ated coood see		
ateu speeu i pis	: 435	Aneroid pressure
		† hPa :
		Rated speed rpm : 1200
ORQUE CONTROL		+ Del. quantity
ated speed rpm	. 200	cm3/1000 strokes : 180.0
red speed rom	47.55	
ack travel mm	: 13.55	+ Tolerance
olerance mm	: +- 0.05	+ cm3/1000 strokes : $+$ 2.0
		+ Check tolerance
ated speed rpm	. 1200	+ cm3/1000s. : + 4.0
ated speed rom	1200	
ack travel man olerance man	: 15.00	+ Spreed
olerance nm	: + 0.10	→ Tolerance
		cm3/1000 strokes : 8.0
	. 400	Check tolerance
ated speed rpm	; 000	
eck travel ma	: 12.80	+ nm3/1000s. : 12.0
lerance ma	: +- 0.20	1
occi ca toc		
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		rack travel mm : 12.80 Tolerance mm : + 0.20
EROID/ALTITUDE		+ Tolerance mm : $+$ 0.20
MPENSATOR TEST		1
A - LINDATON TEST		
		+ Aneroid pressure
TTING		→ hPa : -
		Rated speed rpm : 900
A	. 4000	
rted speed rpm ressure liPa	1200	+ Del. quantity
essure liPa	: 1200	+ cm3/1000 strokes : 71.0
ck travel me	• 14 711	Tolerance
ick travel mm		
olerance mm	: ← 0.10	+ cm3/1000 strokes : $+$ 2.0
		+ Check tolerance
	4000	7.44000
	• 72111	T CM-7/7/88/6 + 4- 7/11
rtea speed rpm	: 1200	+ cm3/1000s. : + 4.0
ressure hPa	: 1200	+ cm3/1000s. : + 4.0
ated speed rpm ressure hPa ack travel mm	1200	+ cm3/7000s. : + 4.0
ressure hPa ack travel ma	: 1200 : - 9.60 : + 0.20	+ cm3/7000s. : +- 4.0
red speed rpm ressure hPa ack travel am blerance mm	: 1200 : - 9.60 : + 0.20	<u> </u>
ated speed rpm ressure hPm ack travel man plerance mm	: 1200 : - 9.60 : + 0.20	STARTING FUEL DELIVERY
red speed rpm ressure hPa ack travel mm blerance mm	: 1200 : - : 9.60 : + 0.20	STARTING FUEL DELIVERY
olerance ma	: 1200 : - : 9.60 : + 0.20	STARTING FUEL DELIVERY
eAsurement	: ← 0.20	STARTING FUEL DELIVERY Rated speed rpm : 100
olerance mm EASUREMENT	: ← 0.20	STARTING FUEL DELIVERY Rated speed rpm : 100
elerance mm EASUREMENT sted speed rpm	: + 0.20 : 1200	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.56 Tolerance mm : + 0.50
eted speed rpm	: + 0.20 : 1200	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.56 Tolerance mm : + 0.50
EASUREMENT ated speed rpm ressure hPa	: +- 0.20 : 1200 : 730	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity
EASUREMENT Sted speed rom ressure hPa ack travel man	: + 0.20 : 1200 : 730 : 13.40	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0
elerance mm EASUREMENT Sted speed rpm	: + 0.20 : 1200 : 730 : 13.40	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance
EASUREMENT Sted speed rom ressure hPa ack travel man	: + 0.20 : 1200 : 730 : 13.40	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0
EASUREMENT Sted speed rpm ressure hPa ack travel mm	: + 0.20 : 1200 : 730 : 13.40 : + 0.20	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0
EASUREMENT Inted speed rom Tessure hPa Tick travel num Tessure hPa	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance
EASUREMENT Inted speed rom ressure hPa Inck travel min Interessure hPa Interessure hPa Interessure hPa Interessure hPa Interessure hPa Interessure hPa Interessure hPa	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0
ASUREMENT Ited speed rom essure hPa ick travel min essure hPa ick travel min	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance
ASUREMENT Ited speed rom essure hPa ick travel min essure hPa ick travel min	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance
EASUREMENT Inted speed rom ressure hPa Inck travel min Interessure hPa Interessure hPa Interessure hPa Interessure hPa Interessure hPa Interessure hPa Interessure hPa	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance
EASUREMENT Ited speed rpm ressure hPa ick travel nm ressure hPa ick travel nm ressure hPa ick travel nm	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance
EASUREMENT Ited speed rpm ressure hPa ick travel nm ressure hPa ick travel nm ressure hPa ick travel nm	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0
ASUREMENT Ited speed rpm ressure hPa ick travel nm ressure hPa ick travel nm ressure hPa ick travel nm	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0
EASUREMENT Eated speed rpm ressure hPa ack travel man ressure hPa ack travel man ressure man ressure man ressure man ressure man rest interlock	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance
ASUREMENT Ited speed rum Ressure hPa Ick travel num Ressure hPa Ick travel num Ressure hPa Ick travel num Ressure num Ressure hPa Ick travel num Resture n	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/100Gs. : + 25.0
ASUREMENT Ited speed rum Ressure hPa Ick travel num Ressure hPa Ick travel num Ressure hPa Ick travel num Ressure num Ressure hPa Ick travel num Resture n	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0
EASUREMENT ated speed rpm ressure hPa ack travel num ressure hPa ack travel num ressure nessure num ressure + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/100Gs. : + 25.0	
EASUREMENT Sted speed rpm ressure hPa ack travel man blerance man ressure hPa ack travel man blerance man cart interlock ated speed rpm ated speed rpm	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/100Gs. : + 25.0 LOW IDLE Rated speed rpm : 350
EASUREMENT Sited speed rpm ressure hPa ack travel man blerance man cart interlock ated speed rpm ated speed rpm ated speed rpm	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/100Gs. : + 25.0 LOW IDLE Rated speed rpm : 350 Rack travel in mm : 6.10
EASUREMENT ated speed rpm ressure hPa ack travel mm ressure hPa ack travel mm clerance mm tart interlock ated speed rpm ated speed rpm meck	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/100Gs. : + 25.0 LOW IDLE Rated speed rpm : 350
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EASUREMENT Sted speed rpm ressure hPa ack travel mm ressure hPa ack travel mm clerance mm cart interlock ated speed rpm ated speed rpm ated speed rpm meck peed 1/min neck	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05 : > 100 : < 280 : > 80	STARTING FUEL DELIVERY Rated speed rpm : 1000 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0 LOW IDLE Rated speed rpm : 350 Rack travel in mm : 6.10 Tolerance mm : + 0.10 Del. quantity
EASUREMENT Sted speed rpm ressure hPa ack travel mm ressure hPa ack travel mm clerance mm cart interlock ated speed rpm ated speed rpm ated speed rpm	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05 : > 100 : < 280 : > 80	Rated speed rpm : 1000 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0 LOW IDLE Rated speed rpm : 350 Rack travel in mm : 6.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 15.0
EASUREMENT Ited speed rpm ressure hPa ick travel min ressure hPa ick travel min ressure	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05 : > 100 : < 280 : > 80	STARTING FUEL DELIVERY Rated speed rpm : 1000 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0 LOW IDLE Rated speed rpm : 350 Rack travel in mm : 6.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 15.0 Tolerance
ASUREMENT ted speed rpm essure hPa ck travel mm lerance mm art interlock ted speed rpm ted speed rpm ted speed rpm	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05 : > 100 : < 280 : > 80	STARTING FUEL DELIVERY Rated speed rpm : 1000 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0 LOW IDLE Rated speed rpm : 350 Rack travel in mm : 6.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 15.0 Tolerance
lerance mm ASUREMENT ted speed rpm essure hPa ck travel mm essure hPa ck travel mm essure mm art interlock ted speed rpm ted speed rpm eck eed 1/min eck eed 1/min	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05 : > 100 : < 280 : < 290	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/100Gs. : + 25.0 LOW IDLE Rated speed rpm : 350 Rack travel in mm : 6.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : + 2.0
ASUREMENT Ited speed rpm ressure hPa ick travel num ressure hPa ick travel num ressure hPa ick travel num resture num ressure num	: + 0.20 : 1200 : 730 : 13.40 : + 0.20 : 300 : 10.75 : + 0.05 : > 100 : < 280 : < 290	STARTING FUEL DELIVERY Rated speed rpm : 1000 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 25.0 LOW IDLE Rated speed rpm : 350 Rack travel in mm : 6.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 15.0 Tolerance

Spreed

Tolerance cm3/1000 strokes : 4.0

Check tolerance cm3/1000s.

: 6.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 30.06.94 Edition : ISO 4113 Test oil

Combination No. : 0 402 046 847

Injection pump

Pump designation: PES6P12UA72URS3316 EP type number : 0 412 026 761

Governor

Governer design. : RQV300...1200PA1045

Governer no. : 0 421 814 043

Cust. part No.

Customer spec. information

: IVECO-AIFO Customer : 8361 SRM 37 Motor

: 272.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar : + 1.5 Tolerance bar

: 1 680 750 089 Test lines

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 3.55 : +- 0.05 Tolerance mm

Check

: **←** 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : **←** 0.30

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 300

Rack travel in mm : 3.30 Tolerance mm : + 0.10 Del. quantity

cm3/1000 strokes : 26.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : **←** 6.0 Spreed

Tolerance

cm3/1000 strokes : Check tolerance

8.0

cm3/1000s.

12.0 :

(B) SETTING OF INJECTION PUMP WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever

position degree : - 1 Rated speed rpm : 1360

Rack travel in mm : 12.90 Tolerarice mm : + 1.30

CONTROL LEVER

control lever

position degree : 115.0 tolerance degree : +- 4.0

RATED SPEED

rack travel mm : 12.90
Rated speed rpm : 1245
Tolerance 1/min : +- 5

rack travel mm : 4.00 Rated speed rpm : 1390 Tolerance 1/min : + 15

rack travel mm : 0.50
Tolerance mm : +- 0.50
Rated speed rpm : 1550

LOW IDLE

control lever

position degree : 61.0 tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 100

CRT mm min. :> 4.70

Testing:

Rated speed rpm : 300 rack travel mm : 3.30 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 385
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 750 rack travel mm : 14.00 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 900
rack travel num : 13.95
Tolerance mma : + 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 9.50
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 320 rack travel mm : 10.20 Tolerance mm : + 0.20

Pressure hPa : 440 rack travel mm : 12.65 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 900 Rated speed rpm : 750

Del. quantity

cm3/1000 strokes : 269.0

Tolerance

cm3/1000 strokes : +- 3.0 Check tolerance

cm3/1000s. : +- 6.0

Aneroid pressure

hPa : Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 152.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 305.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm : 3.30 : **←** 0.10

Tolerance ma

Del. quantity cm3/1000 strokes : 26.0

Tolerance

cm3/1000 strokes : ← 3.0

Check toLerance

cm3/1000s.6.0 : +-

Spreed

Tolerance

8.0 cm3/1000 strokes :

Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.09.97 Test oil : ISO 4113

Combination No. : 0 402 046 880

Injection pump

Pump designation : FES6P120B320RS3377

EP type number : 0 412 026 796

60vernor

Governer design. : RQ750PA1304 Governer no. : 0 421 801 811

Cust. part No. :

Customer spec. information Customer : PERKINS

Motor : EAGLE2006TWG2

Power KW : 287.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

lest oil inlet

temp. *C : 40
Tolerance *C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Overflow quantity

min. l/h : 115 Tolerance l/h : +- 20.0

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.80
Tolerance mm : +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-4-2-6-3-

: 5

Phasing : 9-60-126-186-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 12.90 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 272.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : + 4.0	Aneroid pressure hPa : - Del. quantity
Spreed	cm3/1000 strokes : 272.0 Tolerance
Tolerance cm3/1000 strokes : 5.0	cm3/1000 strokes : + 1.0 Check tolerance
Check tolerance	+ cm3/1000s. : +- 4.0 + Spreed
cm3/1000s. : 9.0	Tolerance cm3/1000 strokes : 5.0
	Check tolerance : 9.0
Rack travel in mm : 4.30 Tolerance mm : - 0.20	Ţ
Tolerance mm : - 0.20 Del. quantity cm3/1000 strokes : 30.0	CONTROL LEVER
Tolerance	control lever
cm3/1000 strokes : +- 4.0 Check tolerance	<pre>position degree : 34.0 tolerance degree : + 4.0</pre>
cm3/1000s. : \leftarrow 6.0	+
Spreed	+ control lever
Tolerance cm3/1000 strokes : 8.0	position degree : 94.0 tolerance degree : + 4.0
Check tolerance	toterance degree 4.0
cm3/1000s. : 12.0	ASSEMBLY GOVERNOR SETTING
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 765
WITH GOVERNOR	rack travel mm : 11.90
	Rated speed rpm : 785
GUIDE SLEEVE TRAVEL	+ Tolerance 1/min : + 5 + rack travel mm : 4.00
Rated speed rpm : 763	+
guide sleeve	rack travel mm : 0.50
travel nm : 4.57 Tolerance nm : + 0.15	+ Tolerance mm : + 0.50 + Rated speed rpm : 900
	Thatea speed i piii . 700
Rated speed rpm : 790 guide sleeve	Rated speed rpm : 766
travel mm : 3.50	+ rack travel mm : 11.90
Tolerance man : + 0.25	+
Rated speed rpm : 809	+ Rated speed rpm : 786 + Tolerance 1/min : +- 5
guide sleeve	+ rack travel mm : 4.00
travel ram : 12.00	+
Tolerance mm : + 0.25	+ rack travel mm : 0.50 + Tolerance mm : +- 0.50
Rated speed rpm : 860	Rated speed rpm : 900
guide sleeve travel mm : 13.50	Ţ
Tolerance mm : + 0.50	Rated speed rpm : 767 rack travel mm : 11.90
FULL LOAD DELIVERY AT FULL LOAD	STOP Rated speed rpm : 787
Rated speed rpm : 700	Tolerance 1/min : +- 5 rack travel mm : 4.00

rack travel mm : 0.50
Tolerance mm : + 0.50
Rated speed rpm : 900

Rated speed rpm : 768 rack travel mm : 11.90

Rated speed rpm : 788
Tolerance 1/min : + 5
rack travel mm : 4.00

rack travel man : 0.50
Tolerance man : + 0.50
Rated speed rpm : 900

Rated speed rpm : 769 rack travel mm : 11.90

Rated speed rpm : 789
Tolerance 1/min : +- 5
rack travel mm : 4.00

rack travel mm : 0.50
Tolerance mm : + 0.50
Reted speed rpm : 900

Rated speed rpm : 770 rack travel mm : 11.90

Rated speed rpm : 790
Tolerance 1/min : + 5
rack travel mm : 4.00

rack travel men : 0.50 Tolerance min : +- 0.50 Rated speed rpm : 900

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 12.90 Tolerance mm : + 0.05

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.90 Tolerance mm : + 0.30 Del. quantity

cm3/1000 strokes : 260.0

Tolerance

cm3/1000 strokes : + 25.0

Check tolerance

cm3/1000s. : \leftarrow 29.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.09.95 Test oil : ISO 4113

Combination No. : 0 402 076 750

Injection pump

Pump designation : PES6P120A720RS3311 EP type number : 0 412 026 760

Governor

Governer design. : RSV400...1050P0A602

6overner no. : 0 421 833 483

Cust. part No. :

Customer-spec. information

Customer : FNH GEOTECH

Motor : P396 Power KW : 179.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 100 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : ← 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 11.45
Tolerance mm: + 0.05

Del. quantity cm3'1000 strokes : 158.0

4	Del. quantity
Tolerance	cm3/1000 strokes : 158.0
cm3/1000 strokes : + 1.0 +	Tolerance
	cm3/1000 strokes : +- 1.0
Check tolerance + 4.0 +	Check tolerance cm3/1000s. : +- 4.0
$\frac{1}{1}$	cm3/1000s. ; +- 4.0 Spreed
Spreed	Tolerance
+	cm3/1000 strokes : 5.0
Tolerance	Check tolerance
cm3/1000 strokes : 5.0	cm3/1000s. : 9.0
Check tolerance	
cn3/1000s : 9.0	
. 7.0	CONTROL LEVER
<u> </u>	control lever
Rated speed rpm : 400	position degree : 96.0
Rack travel in mm: 5.20	tolerance degree : +- 4.0
Tolerance mm : + 0.10	RATED SPEED
Del. quantity +	
cm3/1000 strokes : 26.0	rack travel mm : 0.85
Tolerance	Tolerance mm : + 0.55
cm3/1000 strokes : + 3.0	Rated speed rpm : 1320
Check tolerance + 6.0 +	rack travel mm : 4.00
Spreed	Rated speed rpm : 1160
Tolerance	Tolerance 1/min : + 15
cm3/1000 strokes : 8.0	
Check tolerance	ASSEMBLY GOVERNOR SETTING
cm3/1000s. : 12.0	Rated speed rpm : 1093
I	Rated speed rpm : 1093 rack travel mm : 10.45
(B) SETTING OF INJECTION PUMP	rack gravet mm a rooms
WITH GOVERNOR	Rated speed rpm : 1153
+	Tolerance 1/min : + 5
†	rack travel mm : 4.00
GUIDE SLEEVE POSITION	rack travel mm : 0.85
GOIDE SCEEVE FOSTITON	Tolerance mm : + 0.55
+	Rated speed rpm : 1320
control lever	
position degree : -3	Rated speed rpm : 1094
Rated speed rpm : 800	Rated speed rpm : 1094 rack travel mm : 10.45
Rack travel in man: 0.50	radic states than a rosts
Tolerance mm : + 0.20	Rated speed rpm : 1154
+	Tolerance 1/min : +- 5
governor spring	rack travel mm : 4.00
pre-tension click setting x : 4.25	rack travel mm : 0.85
telek setting x : 4.2	Toterance an : +- 0.55
	Rated speed rpm : 1320
FULL LOAD DELIVERY AT FULL LOAD STOP	•
+	Date Lawrence Appr
Rated speed rpm : 1050	Rated speed rpm : 1095 rack travel mm : 10.45
Aneroid pressure + hPa : 1500 +	FAUR ETRIVEL MAR : 10.42
iw a . (500	Rated speed rpm : 1155
•	

Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm Tolerance mm Rated speed rpm	: ← 0.55
Rated speed rpm	: 1096
rack travel mm	: 10.45
Rated speed rpm Tolerance 1/min rack travel mm	: ← 5
rack travel mm Tolerance mm Rated speed rpm	: +- 0.55
Rated speed rpm	: 1097
rack travel ma	: 10.45
Rated speed rpm	: 1157
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel am	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm	: 1320
Rated speed rom	: 1098
rack travel mm	: 10.45
Rated speed rpm	: 1158
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm	: 1320
LOW IDLE	and the same of the same of the same of the same of the same of the same of the same of the same of the same of
control lever	: 73.0

position degree : 73.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 400

rack travel mm : 4.70 Tolerance mm : + 0.10 4.70

Testing:

Rated speed rpm : 400

rack travel mm : 5.20 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 530 Tolerance 1/min : + 20

TORQUE CONTROL Rated speed rpm : 1050 rack travel mm : 11.45 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 12.50 Tolerance mm : + 0.10 Rated speed rpm : 935 rack travel mm : 12.00 Tolerance mm : + 0.10 Rated speed rpm : 700 rack travel mm : 12.50 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Fressure hPa : 1500 rack travel mm : 12.50 Tolerance mm : + 0.10

Rated speed rpm : 500 Pressure hPa : - rack travel mm : 9.40 : + 0.10 Tolerance mm

MEASUREMENT

500 Rated speed rpm :

Pressure hPa : rack travel mm : 950 12.25 Tolerance mm : ← 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure : 1500

Rated speed rpm : 750

Del. quantity

cm3/1000 strokes : 194.0

Tolerance	
cm3/1000 strokes	: ← 3.0
Check tolerance cm3/1000s.	: +- 6.0
Chip/ 1000s.	0.0
rack travel mm	: 12.00
Tolerance ma	: ← 0.10
Aneroid pressure hPa	
Rated speed rpm	: - 500
Del. quantity	- च र्चक
cm3/1000 strokes	: 127.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance	
cm3/1000s.	: ← 4.0
STARTING FUEL DEL	IVERY
Dated and an	. 400
Rated speed rpm rack travel mm	: 100 : 20.50
Tolerance man	: +- 0.50
Del. quantity	
cm3/1000 strokes	: 195.0
Tolerance cm3/1000 strokes	: + 15.0
Check tolerance	. 10.0
cm3/1000s.	: ← 19.0
LOW IDLE	
Rated speed rpm	: 400
Rack travel in mm	: 5.20
Tolerance mm	: + 0.10
Del. quantity	. 2/ 0
cm3/1000 strokes Tolerance	: 26.0
cm3/1000 strokes	: + 3.0
Check tolerance	
cm3/1000s.	: + 6.0
Spreed	
Tolerance	: 8.0
cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 21.07.95 Test oil : ISO 4113

Combination No. : 0 402 076 751

Injection pump

Pump designation : PES6P120A720RS3311 EF type number : 0 412 026 760

Governor

Governer design. : RSV400...1050P0A603

6overner no. : 0 421 833 484

Cust. part No. :

Customer-spec. information

Customer: : FNH-GEOTECH

Motor : P396 Power KW : 157.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 100 Tolerance L/h : + 20.0

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5
Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-5-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

40.75

Rack travel in mm: 10.35

Tolerance mm : + 0.05	Rated speed rpm : 1050 Aneroid pressure
Del. quantity cm3/1000 strokes : 132.0	hPa : 1500 Del. quantity
Tolerance	cm3/1000 strokes : 132.0 Tolerance
cm3/1000 strokes : + 1.0	cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000s. : +- 4.0 Spreed Tolerance
Spreed	cm3/1000 strokes : 5.0 Check tolerance
Tolerance cm3/1000 strokes : 5.0	cm3/1000S. : 9.0
Check tolerance cm3/1000s. : 9.0	CONTROL LEVER
Rated speed rpm : 400	<pre>control lever position degree : 101.0 tolerance degree : +- 4.0</pre>
Rack travel in mm: 4.50	RATED SPEED
Tolerance mm : + 0.10	0.95
Del. quantity + cm3/1000 strokes : 18.0 +	rack travel mm : 0.85 Tolerance mm : + 0.55
Tolerance	Rated speed rpm : 1320
cm3/1000 strokes : + 3.0	rack travel mm : 4.00
Check tolerance + 6.0 +	rack travel mm : 4.00 Rated speed rpm : 1160
Spreed	Tolerance 1/min : + 15
Talerance + cm3/1000 strokes : 8.0 +	ASSEMBLY GOVERNOR SETTING
cm3/1000 strokes : 8.0 + Check tolerance +	MOSEUDEL GOAEVIANK SELLTIAG
cm3/1000s. : 12.0	Rated speed rpm : 1093
†	rack travel mm : 9.35
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1153
WITH GOVERNOR	Tolerance 1/min : + 5
†	rack travel mm : 4.00
	rack travel mm : 0.85 Tolerance mm : - 0.55
GUIDE SLEEVE POSITION	Tolerance mm : - 0.55
<u> </u>	Rated speed rpm : 1320
control lever	
position degree : -3	Rated speed rpm : 1094
Rated speed rpm : 800	rack travel mm : 9.35
Rack travel in mm: 0.50	Rated speed rpm : 1154
Tolerance mm : + 0.20	Tolerance 1/min : + 5
dovernon spring	rack travel mm : 4.00
governor spring + pre-tension +	rack travel mm : 0.85
click setting x : 5.00	Tolerance man : + 0.55
+	Rated speed rpm : 1320
FULL LOAD DELIVERY AT FULL LOAD STOP	
1000 0010 00000111111111111111111111111	Rated speed rpm : 1095

rack travel am	: 9.35	†	Testing:	
Rated speed rpm Tolerance 1/min rack travel mm	: ← 5	T	Rated speed rpm rack travel mm Tolerance mm	: 4.50
rack travel man Tolerance mun Rated speed rpm	: 0.85 : ← 0.55 : 1320	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	rack travel mma Rated speed rpm Tolerance 1/min	: 530
Rated speed rpm rack travel mm Rated speed rpm	: 9.35	+	TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 10.35
Tolerance 1/min rack travel mm	: +- 5	. ‡	Rated speed rpm	: 750
rack travel mm	: 0.85 : ← 0.55	<u> </u>	rack travel mm Tolerance mm	: 750 : 11.20 : ← 0.10
Tolerance mm Rated speed rpm	: 1320	-	Rated speed rpm rack travel mm: Tolerance mm	: 11.00
Rated speed rpm rack travel mm	9.35	Ī	ANEROID/ALTITUDE	
Rated speed rom Tolerance 1/min rack travel mm	: ← 5	<u> </u>	COMPENSATOR TEST	
rack travel mm		1	SETTING	
Tolerance mm Rated speed rpm	: ← 0.55	+	Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1500 : 11.20
Rated speed rpm rack travel mm		†	Rated speed rpm Pressure hPa	: 500
Rated speed rpm Tolerance 1/min rack travel mm	: ← 5	+	rack travel mm Tolerance mm	: 9.00 : ← 0.10
rack travel mm	: 0.85	‡	MEASUREMENT	
Tolerance man Rated speed rom	: ← 0.55 : 1320	‡	Rated speed rpm	
LOW IDLE		 	Pressure hPa rack travel mm Tolerance mm	: 900 : 10.85 : + 0.05
control lever position degree tolerance degree	: 79.0 : + 4.0	T	FUEL DELIVERY CHA	RACTERISTICS
Setting point w/o	out bumper sprin	a ‡	Aneroid pressure	: 1500

400

: **←** 0.10

5.00

1500

750

163.0

hPa

Rated speed rpm

Del. quantity cm3/1000 strokes :

Rated speed rpm :

rack travel mm Tolerance mm

Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		
cm3/1000s.	: +-	6.0

rack travel mm	:	11.00
Tolerance and	: •	⊢ 0.10

Aneroid pressure			
hPa			_
Rated speed rpm	:		500
Del. quantity			
cm3/1000 strokes			175.0
Tolerance			
cm3/1000 strokes	:	+-	1.0
Check tolerance			
cm3/1000s.	•	+	4.0

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		20.50
Tolerance mm	:	+-	0.50
Del. quantity			
cm3/1000 strokes	:		190.0
Tolerance			
cm3/1000 strokes	**	+-	15.0
Check tolerance			
cm3/1000s.	:	+	19.0

LOW IDLE

Rated speed rpm	:		400
Rack travel in man Tolerance man	:	+-	4.50 0.10
Del. quantity cm3/1000 strokes Tolerance	:		18.0
cm3/1000 strokes	:	+	3.0
cm3/1000s. Spreed	:	+-	6.0
Tolerance cm3/1000 strokes	:		8.0
Check tolerance cm3/1000s.	:		12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 26.11.97 Edition : ISO 4113 Test oil

Combination No. : 0 402 076 758

Injection pump

Pump designation : PES6P120A720RS3322

EP type number : 0 412 026 764

Governor

Governer design. : RSV650...1250P8A566

Governer no. : 0 421 833 415

Cust. part No. : 87801599

Customer-spec. information

Customer : FNH-GEOTECH

Power KW : 164.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C : **←** 2.0

Overflow valve : 2 417 413 386

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 har Tolerance bar : \leftarrow 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

H₀2

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.30 Tolerance

Check

tolerance "NW : - 0.50

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 10.05 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 131.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 6.0	+ Check tolerance + cm3/1000s. : +- 6.0 + Spreed
Spreed	Tolerance : 5.0
Tolerance	+ Check tolerance
cm3/1000 strokes : 5.0	- cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 9.0	<u> </u>
	CONTROL LEVER
	control lever
Rated speed rpm : 650	position degree : 112.0 tolerance degree : +- 4.0
Rack travel in mm : 4.40	+
Tolerance mm : + 0.10 Del. quantity	RATED SPEED
cm3/1000 strokes : 19.0	+ Rated speed rpm : 1330
Tolerance	+ Tolerance 1/min : + 15
cm3/1000 strokes : - 3.0	ASSEMBLY COVERNOR SETTIALS
Check tolerance cm3/1000s. : + 6.0	ASSEMBLY GOVERNOR SETTING
Spreed	Rated speed rpm : 1293
Tolerance	rack travel mm : 9.05
cm3/1000 strokes : 8.0	+ Rated speed rpm : 1325
Check tolerance cm3/1000s. : 12.0	+ Rated speed rpm : 1325 + Tolerance 1/min : + 5
1107 10000	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	+ rack travel mm : 0.85
WITH GOVERNOR	+ Tolerance mm : + 0.55
Walli Governon	Rated speed rpm : 1500
	1
GUIDE SLEEVE POSITION	Rated speed rpm : 1294
	rack travel mm : 9.05
control lever	Rated speed rpm : 1326
position degree : - 3	+ Tolerance 1/min : + 5
Rated speed rpm : 800	rack travel mm : 4.00
Rack travel in mm: 0.50	Frack travel mm : 0.85
Tolerance mm : + 0.20	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1500
governon enning	+ Rated speed rpm : 1500
governor spring pre-tension	<u></u>
click setting x : 1.75	Rated speed rpm : 1295 rack travel mm : 9.05
	rack travel mm : 9.05
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1327
	+ Tolerance 1/min : + 5
Rated speed rpm : 1250 Aneroid pressure	rack travel mm : 4.00
Aneroid pressure hPa : 1000 Del. quantity	rack travel mm : 0.85
Del. quantity	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1500
cm3/1000 strokes : 131.0 Tolerance	+ Rated speed rpm : 1500
cm3/1000 strokes : + 1.0	+
	+ Rated speed rpm : 1296

rack travel mm	: 9.05	+ Rated speed rpm + rack travel mma	
Rated speed rpm	: 1328	Tolerance min	: + 0.05
Tolerance 1/min		†	000
rack travel me	: 4.00	+ Rated speed rpm	
		+ rack travel mm	: 10.60
rack travel mm	: 0.85	+ Tolerance mm	: ← 0.10
Tolerance am	: ← 0.55	+	
rack travel mm Tolerance mm Rated speed rpm	: 1500	+ Rated speed rpm	: 1160
		+ rack travel mm	: 10.35
		rack travel man Tolerance man	: +- 0.10
Rated speed rpm	: 1297		
rack travel mm	9.05	Rated speed rpm	: 700
		rack travel mm	10.60
Rated speed rpm	1320	- Tolerance man	
Tolerance 1/min	: +- 5	1	. 0.70
rack travel man		-	
LUCK CLUSACC INSH	. 4.00	ANEROID/ALTITUDE	
mank dans all ma	. 0.95	COMPENSATOR TEST	
rack travel ma	. 0.65	T COMPENSATOR TEST	
rack travel mma Tolerance mma Rated speed rpm	4506	Ţ	
Rated speed rpm	: 1200	T CETTING	
		SETTING	
	4200	T Bakadawa da was	
Rated speed rpm	: 1298	Rated speed rpm Pressure hPa	: 500
rack travel mm	: 9.05	+ Pressure hPa	: 1000
		f- rack travel ma	: 10.60
Rated speed rpm	: 1330	† Tolerance mm	: ← 0.10
Rated speed rpm Tolerance 1/min rack travel mm	: +- 5	+	
rack travel mm	: 4.00	+ Rated speed rpm	: 500
		+ Pressure hPa	: -
rack travel mm	: 0.85	🗼 rack travel mm	: 7.60
Tolerance mm	: ← Ű.55	+ Tolerance mm	: +- 0.10
Tolerance mm Rated speed rpm	: 1500	+	
•		+ MEASUREMENT	
		- +	
LOW IDLE		+ Rated speed rpm	: 500
		+	
		+ Pressure hPa	: 560
control lever		rack travel mm	: 9.80
position degree	: 85.0	+ Tolerance mm	
tolerance degree	: +- 4.0	+	
		ļ 	
Setting point w/o	out bumper spring	+ Start interlock	
• • • • • • • • • • • • • • • • • • • •	. , •	+	
Rated speed rpm	: 650	+ Rated speed rpm	: > 100
rack travel mm	3.90	+	
Tolerance mm	: + 0.10	+ Check	
		+ speed 1/min	: > 80
Testing:		- '	
Rated speed rpm	: 650	+ FUEL DELIVERY CHA	RACTERISTICS
rack travel mm	: 4.40	+	
Tolerance mm	: + 0.10	+	
		+ Aneroid pressure	
rack travel mm	: 2.00	_	: 1000
Rated speed rpm		+ hPa + Rated speed rpm	: 900
Tolerance 1/min	: +- 50	+ Del. quantity	
		+ cm3/1000 strokes	: 144.5
		- Tolerance	
TORQUE CONTROL		- cm3/1000 strokes	: +- 3.0
TONGOE CONTINUE		1 511157 1000 361 0763	

Check tolerance cm3/1000s.	: ← 6.0
rack travel mm Tolerance mm	: 10.35 : + 0.10
Aneroid pressure	• _
Rated speed rpm	÷ 500
Del. quantity cm3/1000 strokes	: 83.0
Tolerance cm3/1000 strokes	: ← 1.0
Check tolerance cm3/1000s.	: ← 4.0
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.50 : + 0.50
LOW IDLE Rated speed rpm	: 650
Rack travel in mm Tolerance mm	: 4.40 : +- 0.10
Del. quantity cm3/1000 strokes	: 19.0
Tolerance	
cm3/1000 strokes Check tolerance	: +- 3.0
	: ← 6.0
cm3/1000s. Spreed	
cm3/1000s.	: 8.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 26.11.97 Test oil : ISO 4113

Combination No. : 0 402 076 759

Injection puro

Pump designation : PES6P120A720RS3322

EP type number : 0 412 026 764

Governor

Governer design. : RSV650...1250P8A567

Governer no. : 0 421 833 416

Cust. part No. : 87801592

Customer-spec. information

Customer : FNH-GEOTECH

Power KW : 201.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0

H06

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

Check

tolerance *NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 11.65
Tolerance mm : + 0.10

Del. quantity - cm3/1000 strokes : 157.5	Aneroid pressure hPa : 1000
Tolerance cm3/1000 strokes : + 1.0	Del. quantity cm3/1000 strokes : 157.5 Tolerance
Check tolerance	cm3/1000 strokes : +- 1.0 - Check tolerance - cm3/1000s. : +- 6.0
Spreed	Spreed Tolerance cm3/1000 strokes : 5.0
Tolerance - cm3/1000 strokes : 5.0 -	Check tolerance : 9.0 : 9.0
Check tolerance cm3/1000s. : 9.0	
	CONTROL LEVER
Rarted speed rpm : 650	control lever position degree : 109.0 tolerance degree : +- 4.0
Rack travel in mm : 4.80 - Tolerance mm : +- 0.10 - Del. quantity -	RATED SPEED
cm3/1000 strokes : 21.0 -	Rated speed rpm : 1330 Tolerance 1/min : +- 15
cm3/1000 strokes : + 3.0 - Check tolerance cm3/1000s. : + 6.0	ASSEMBLY GOVERNOR SETTING
Spreed	Rated speed rpm : 1293 rack travel mm : 10.65
cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 12.0	TRated speed rpm : 1325 Tolerance 1/min : +- 5
	rack travel mm : 4.00
(D) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1500
GUIDE SLEEVE POSITION	Rated speed rpm : 1294 rack travel mm : 10.65
control lever position degree : - 3 Rated speed rpm : 800	Rated speed rpm : 1326 Tolerance 1/min : +- 5 rack travel mm : 4.00
Rack travel in mm: 0.50 - Tolerance mm: + 0.20 -	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1500
governor spring pre-tension click setting x : 3.00	Rated speed rpm : 1295 rack travel mm : 10.65
FULL LOAD DELIVERY AT FULL LOAD STOP	† Rated speed rpm : 1327 Tolerance 1/min : ← 5
Rated speed rpm : 1250	rack travel mm : 4.00

rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1500	rack travel mm : 2.00 Rated speed rpm : 770 Tolerance 1/min : + 50
Rated speed rpm : 1296 rack travel mm : 10.65 Rated speed rpm : 1328	TORQUE CONTROL Rated speed rpm : 1250 rack travel mm : 11.65 Tolerance mm : +- 0.10
Rated speed rpm : 1328 Tolerance 1/min : + 5 rack travel mm : 4.00	Rated speed rpm : 900 rack travel mm : 12.10 Tolerance mm : + 0.10
rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rom : 1500	+ rack travel mm : 12.10 + Tolerance mm : + 0.10 + Rated speed rpm : 700 + rack travel mm : 12.15 + Tolerance mm : + 0.15
Rated speed rpm : 1297 rack travel mm : 10.65	+
Rated speed rpm : 1329 Tolerance 1/min : + 5 rack travel mm : 4.00	+ ANEROID/ALTITUDE + COMPENSATOR TEST +
	+ SETTING
rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 150G	Rated speed rpm : 500 Pressure hPa : 1000 rack travel mm : 12.10 Tolerance mm : + 0.10
Rated speed rpm : 1298 rack travel mm : 10.65	Rated speed rpm : 500
Rated speed rpm : 1330 Tolerance 1/min : + 5 rack travel mm : 4.00	Pressure hPa : rack travel mm : 7.90 Tolerance mm : +- 0.10
	MEASUREMENT
rack travel ma : C.85 Tolerance mm : + G.55 Rated speed rpm : 1500	Rated speed rpm : 500
LOW IDLE	+ Pressure hPa : 490 + rack travel mm : 11.05 + Tolerance mm : + 0.05
control lever	Start interlock
position degree : 79.0 tolerance degree : +- 4.0	Rated speed rpm : > 100
Setting point w/out bumper spring	Check speed 1/min :> 80
Rated speed rpm : 650 rack travel mm : 4.30 Tolerance mm : + 0.10	FUEL DELIVERY CHARACTERISTICS
Testing:	Aneroid pressure
Rated speed rpm : 650 rack travel mm : 4.80 Tolerance mm : + 0.10	hPa : 1000 Rated speed rpm : 900 Del. quantity cm3/1000 strokes : 176.0

Tolerance cm3/1000 strokes	: ← 3.0	
Check tolerance		
cm3/1000s.	: ← 6.0	
rack travel mm Tolerance mm	: 12.15 : + 0.15	
roterance mi	; - 0.15	
Aneroid pressure		
hPa	: -	
Rated speed rpm	: 500	
Del. quantity cm3/1000 strokes	: 84.5	
Tolerance	: +- 1.0	
cm3/1000 strokes Check tolerance	, 	
cm3/1000s.	: ← 4.0	
STARTING FUEL DEL	TVEDY	_
Rated speed rpm	: 100 : 20.50	
rack travel mm Tolerance mm	: 20.50 : ← 0.50	
Del. quantity	• • 0.50	
cm3/1000 strokes	: 210.0	
Tolerance cm3/1000 strokes	: +- 15.0	
Check tolerance		
cm3/1000s.	: + 19.0	
LOW IDLE		
Rated speed rpm	: 650	
Rack travel in ma		
Tolerance mm	: ← 0.10	
Del. quantity cm3/1000 strokes	: 21.0	
Tolerance		
cm3/1000 strokes Check tolerance	: 3.0	
cm3/1000s.	: +- 6.0	
Spreed		
Tolerance cm3/1000 strokes	: 8.0	
Check tolerance		
cm3/1000s.	: 12.0	

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 26.11.97 Test oil : ISO 4113

Combination No. : 0 402 076 762

Injection pump

Pump designation : PES6P12DA72GRS3322 EP type number : 0 412 026 764

Governor

Governer design. : RSV650...1250P8A567

: -1

Governer no. : 0 421 833 422

Cust. part No. : 87801597

Customer-spec. information

Customer : FNH-GEOTECH

Power KW : 179.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 105 Tolerance l/h : ← 20.0

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : - 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

Start of delivery blocking

Check

tolerance *NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : Tolerance mm :	10.70 ← 0.05	FULL LOAD DELIVER'	Y AT FULL LOAD STOP
Del. quantity cm3/1000 strokes :	137.5	Aneroid pressure hPa Del. quantity	: 1500
Tolerance cm3/1000 strokes :	+ 1.0	cm3/1000 strokes Tolerance cm3/1000 strokes	
Check tolerance cm3/1000s. :	+ 6.0	Check tolerance cm3/1000s. Spreed	: + 6.0
Spr ee d		Tolerance cm3/1000 strokes	: 5.0
Tolerance cm3/1000 strokes :	5.0	Check tolerance cm3/1000s.	: 9.0
Check tolerance cm3/1000s.	9.0	CONTROL LEVER	
_	 		
Rated speed rpm :	650	control lever position degree tolerance degree	
Rack travel in mm : Tolerance mm : Del. quantity	+ 0.10	RATED SPEED	
cm3/1000 strokes : Tolerance cm3/1000 strokes :	21.0	Rated speed rpm Tolerance 1/min	
Check tolerance	+ 6.0	ASSEMBLY GOVERNOR	SETTING
cm3/1000S. : Spreed Tolerance	1	Rated speed rpm rack travel mm	
cm3/1000 strokes : Check tolerance	8.0	Rated speed rpm	
cm3/1000s. :	12.0	Tolerance 1/min rack travel mm	: +- 5
(B) SETTING OF INJECT WITH GOVERNOR	TION PUMP	rack travel mm Tolerance mm Rated speed rpm	: +- 0. 55
GUIDE SLEEVE POSITIO	N I	Rated speed rpm rack travel mm	
control lever position degree : Rated speed rpm :		Rated speed rpm Tolerance 1/min rack travel mm	: +- 5
Rack travel in mm : Tolerance mm :		rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1500
governor spring pre-tension click setting x :	3.50	Rated speed rpm rack travel mm	: 1295
	•		

Rated speed rpm	: 1327
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm	: 1500
Rated speed rpm	: 12%
rack travel mm	: 9.65
Rated speed rpm Tolerance 1/min rack travel mm	: 5
rack travel mm	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm	: 1500
Rated speed rpm rack travel mm	
Rated speed rpm	: 1329
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm Tolerance mm Rated speed rpm	: ← 0.55
Rated speed rpm	: 1298
rack travel mm	: 9.65
Rated speed rpm Tolerance 1/min rack travel mm	: ← 5
rack travel mmo	: 0.85
Tolerance mmo	: ← 0.55
Rated speed rpm	: 1500
LOW IDLE	

control lever
position degree : 80.0
tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 650 rack travel mm : 4.10 Tolerance mm : + 0.10

Testing:

Rated speed rpm : 650
rack travel mm : 4.60
Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 750
Tolerance 1/min : + 50

TORQUE CONTROL
Rated speed rpm : 1250
rack travel mm : 10.70
Tolerance mm : + 0.05

Rated speed rpm : 900
rack travel mm : 11.10

Tolerance mm : + 0.10

Rated speed rpm : 1100
rack travel mm : 10.95

Rated speed rpm : 700 rack travel mm : 11.10 Tolerance mm : ← 0.10

: + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

Tolerance mm

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 11.10
Tolerance mm : + 0.10

Rated speed rpm : 500
Pressure hPa : rack travel mm : 7.70
Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 630 rack travel mm : 10.75 Tolerance mm : + 0.05

Start interlock

Rated speed rpm : > 100

Check speed 1/min :>

80

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

: 1500 hPa 900 Rated speed rpm :

Del. quantity

cm3/1000 strokes : 150.5

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s.: + 6.0

rack travel mm : 10.95 : **←** 0.10 Tolerance mm

Aneroid pressure

hPa Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 82.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : **←** 4.0

STARTING FUEL DELIVERY

Del. quantity

cm3/1000 strokes : 210.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

: **←** 19.0 cm3/1000s.

LOW IDLE

Rated speed rpm : 650

Rack travel in mm: 4.60 Tolerance mn: $\leftarrow 0.10$

Del. quantity

cm3/1000 strokes : 21.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

: + 6.0 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance cm3/1000S.

: 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 26.11.97 Test oil : ISO 4113

Combination No. : 0 402 076 768

Injection pump

Pump designation : PES6P12DA72DRS3322

EP type number : 0 412 026 764

Governor

Governer design. : RSV650...1250P8A567

: -2

Governer no. : 0 421 833 443

Cust. part No. : 87801594

Customer—spec. information

Customer : FNH-GEOTECH
Motor : 7,5l - DI
Power KW : 190.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50
Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 11.45
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 153.0

Tolerance

cm3/1000 strokes : +- 1.0

H14

Check tolerance cm3/1000s. : +- 6.0	Check tolerance cm3/1000s. : + 6.0
Spreed	+ Spreed + Tolerance
·	+ cm3/1000 strokes : 5.0
Tolerance cm3/1000 strokes : 5.0	Check tolerance cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 9.0	
	CONTROL LEVER
	+ control lever
Rated speed rpm : 650	<pre>position degree : 109.0 tolerance degree : + 4.0</pre>
Rack travel in mm: 4.80	+
Tolerance mm : + 0.10 Del. quantity	RATED SPEED
cm3/1000 strokes : 21.0	Rated speed rpm : 1300
Tolerance	Tolerance 1/min : + 15
cn3/1000 strokes : + 3.0	RODENDI V. COLUMNICO, CETTANO
Check tolerance cm3/1000s. : +- 6.0	ASSEMBLY GOVERNOR SETTING
Spreed	Rated speed rom : 1263
Tolerance	Rated speed rpm : 1263 rack travel mm : 10.45
cm3/1000 strokes : 8.0	
Check tolerance	+ Rated speed rpm : 1295
cm3/1000s. : 12.0	Tolerance 1/min : + 5 rack travel mm : 4.00
	T rack cravet min : 4.00
(B) SETTING OF INJECTION PUMP	rack travel mm : 0.85
WITH GOVERNOR	+ Tolerance mm : +- 0.55
	Rated speed rpm : 1500
CUIDE SUEDIE DOCUTION	Poted speed ppp 4 124/
GUIDE SLEEVE POSITION	Rated speed rpm : 1264 rack travel mma : 10.45
	+
control lever	Rated speed rpm : 1296
position degree : - 3	+ Tolerance 1/min : + 5
Rated speed rpm : 800	rack travel mm : 4.00
Rack travel in mm : 0.50	rack travel mm : 0.85
Tolerance mm : ← 0.20	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1500
anyeman anine	+ Rated speed rpm : 1500
governor spring pre-tension	I
click setting x : 3.00	Rated speed rpm : 1265
	rack travel mm : 10.45
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1297
Rated speed rpm : 1200	Tolerance 1/min : + 5 + rack travel mm : 4.00
	}
Aneroid pressure hPa : 1000 Del. quantity	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1500
Del. quantity	+ Tolerance mm : + 0.55
cm3/1000 strokes : 153.0 Tolerance	+ Rated speed rpm : 15UU
cm3/1000 strokes : + 1.0	+
	+ Rated speed rpm : 1266

rack travel mm	: 10.45	Rated speed rpm rack travel mm Tolerance mm	: 1200
		+ rack travel mm	: 11.45
Rated speed rpm	: 1298	+ Tolerance mm	: ← 0.05
Tolerance 1/min	: ← 5	∔	
rack travel mm	: 4.00	Rated speed rpm rack travel mm Tolerance mm	: 900
		+ rack travel mm	: 11.80
rack travel am	: 0.85	+ Tolerance mm	: +- 0.10
Tolerance mm Rated speed rpm	: ← 0.55	+	
Rated speed rpm	: 1500	+ Rated speed rpm	: 1100
		+ rack travel nm	: 11.60
		Rated speed rpm rack travel mm Tolerance mm	: ← 0.10
Rated speed rpm rack travel mma	: 1267	-	
rack travel ma	: 10.45	+ Rated speed rpm	: 700
		+ rack travel mm	: 11.90
Rated speed rpm	: 1299	Rated speed rpm rack travel mm Tolerance mm	: +- 0.10
Tolerance 1/min	: ← 5	+	
rack travel mm	: 4.00	+	
		+ ANEROID/ALTITUDE	
rack travel mon	: 0.85	+ COMPENSATOR TEST	
Tolerance mm	: + 0.55	+	
Tolerance mm Rated speed rpm	: 1500	+	
, , , , , , , , , , , , , , , , , , , ,	-	SETTING	
Deductions of the	. 12/8	T Botad amond ann	. 500
Rated speed rpm rack travel mm	. 1200	Rated speed rpm Pressure hPa	. 1000
Lack thave the	: 10.45	T Pressure fira	. 1000
Date of many of more	. 1700	rack travel mm Tolerance mm	. 11.70
Rated speed rom	: /39,0	Toterance min	. — 3.10
Tolerance 1/min	. / 00	T Dated aread are	. 500
rack travel mm	: 4.00	Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500
	. 0.95	+ Pressure nra	7.00
rack travel mm	: 0.65	Talanana mu	0 10
rack travel mm Tolerance mm Rated speed rpm	: T- 0.55	T loterance inn	. + 0.10
kated speed rpm	: 1500	T MEASUREMENT	
		THEASUREPEIVE	
LOW IDLE		Rated speed rpm	: 500
		† Danas (172 b)	: 595
		Pressure hPa	
control lever		rack travel mm	11.45
position degree	: 80.0	+ Tolerance mm	: ← 0.05
tolerance degree	: +- 4.0	İ	
Setting point w/d	out bumper spring	Start interlock	
Rated speed rpm	: 650	Rated speed rpm	: > 100
rack travel man		T vared speed (bill	100
Tolerance mm		T Check	
INTERIORIE IN	0.10	speed 1/min	: > 80
Testing:		+ Speed 17 mill	. > 00
Rated speed rpm	• 650	FUEL DELIVERY CHA	ARACTERISTICS
rack travel me	: 4.80	1	
rack travel mm Tolerance mm	. ← 0.10	<u> </u>	
		Aneroid pressure	
rack travel mm	: 2.00	hPa	: 1000
Ratted speed rpm		Rated speed rpm	
Tolerance 1/min		+ Del. quantity	. 700
lofeLaure (VIII)	. +-)0	+ cm3/1000 strokes	• 170.0
		+ Tolerance	. 110.0
TOROUT CONTROL		+ cm3/1000 strokes	30
TORQUE CONTROL		T CIRD/ (UUU STrokes	3.0

Check tolerance cm3/1000s. : ← 6.0

rack travel mm : 11.60
Tolerance mm : + 0.10

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes : 83.0 Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Del. quantity

cm3/1000 strokes : 215.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 650

Rack travel in mm : 4.80 Tolerance mm : 4.010

Del. quantity

cm3/1000 strokes : 21.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See Microcard(s) W400/...

Edition : 26.11.97 Test oil : ISO 4113

Combination No. : 0 402 076 771

Injection pump

Pump designation : PES6P120A720RS3340 EP type number : 0 412 026 773

Governor

Governer design. : RSV650...1100P8A566

: -1

Governor no. : 0 421 833 452

Cust. part No. : 87801591

Customer-spec. information

Customer : FNH-GEOTECH

Power KW : 201.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. *C : 40
Tolerance *C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm.: 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance 'Nwi : - 0.75

Start of delivery blocking

Check

tolerance *NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm: 12.35

Tolerance mm : + 0.05	Rated speed rpm : 1075 Aneroid pressure
Del. quantity cm3/1000 strokes : 183.0	hPa : 1600 Del. quantity
Tolerance	cm3/1000 strokes : 183.0 Tolerance cm3/1000 strokes : +- 1.0
Check tolerance	Check tolerance cm3/1000s. : + 6.0
cm3/1000s. : + 6.0	Spreed Tolerance
Spreed	cm3/1000 strokes : 5.0 Check tolerance
Tolerance cm3/1000 strokes : 5.0	cm3/1000S. : 9.0
Check tolerance cm3/1000s. : 9.0	CONTROL LEVER
	control lever position degree : 97.0
Rated speed rpm : 650	tolerance degree : 4.0
Rack travel in mm: 4.60 Tolerance mm: + 0.10	RATED SPEED
Del. quantity cm3/1000 strokes : 23.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 1165 Tolerance 1/min : 15
cm3/1000 strokes : + 3.0 Check tolerance	ASSEMBLY GOVERNOR SETTING
cm3/1000s. : ← 6.0 + 5preed	Rated speed rpm : 1121
Tolerance cm3/1000 strokes : 8.0	rack travel mm : 11.30
Check tolerance cm3/1000s. : 12.0	Rated speed rpm : 1152 Tolerance 1/min : + 5 rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1350
GUIDE SLEEVE POSITION	Rated speed rpm : 1122 rack travel mm : 11.30
control lever position degree : - 3	Rated speed rpm : 1153 Tolerance 1/min : + 5
Rated speed rpm : 800	rack travel mm : 4.00
Rack travel in mm: 0.50 Tolerance mm: : + 0.20	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1350
governor spring pre-tension +	
click setting x : 2.50	Rated speed rpm : 1123 rack travel mm : 11.30
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1154 Tolerance 1/min : +- 5

rack travel mm	: 4.00	† Tolerance mm	: ← 0.10
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : ← 0.55 : 1350	rack travel mm Rated speed rpm	: 2.00 : 750
Rated speed rpm rack travel mm	: 1124 : 11.30	TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1075 : 12.35 : + 0.05
Rated speed rpm Tolerance 1/min rack travel mm	: +- 5 : 4.00	Rated speed rpm rack travel mm Tolerance mm	
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1350	Rated speed rpm rack travel mm Tolerance mm	: 13.20
Rated speed rpm rack travel mm	: 11.30	ANEROID/ALTITUDE COMPENSATOR TEST	
Rated speed rpm Tolerance 1/min rack travel mm	: + 5 : 4.00	SETTING	
rack travel mm Tolerance mm Rated speed rpm	: ← 0.55	Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1600 : 13.20
Rated speed rpm rack travel mm Rated speed rpm	: 1157	Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 7.60 : + 0.15
Tolerance 1/min rack travel mm	: ← 5	MEASUREMENT	
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1350	Rated speed rpm Pressure hPa rack travel mm Tolerance mm	
LOW IDLE		<u> </u>	
control lever position degree tolerance degree	: 78.0 : ← 4.0	Start interlock Rated speed rpm Check	: > 100
Setting point w/o	out bumper spring	speed 1/min	: > 80
Rated speed rpm rack travel mm Tolerance mm	: 650 : 4.10 : + 0.10	FUEL DELIVERY CHA	ARACTERISTICS
Testing: Rated speed rpm rack travel mm	: 650 : 4.60	Aneroid pressure hPa Rated speed rpm	: 1600

Del. quantity
cm3/1000 strokes : 210.0
Tolerance
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 6.0

rack travel mm : 13.20 Tolerance mm : + 0.15

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 83.0
Tolerance
cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.50
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 150.0
Tolerance
cm3/1000 strokes : + 15.0
Check tolerance
cm3/1000s. : + 19.0

LOW IDLE

650 Rated speed rpm : Rack travel in mm : 4.60 : **←** 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 0.8 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 26,11,97 : ISO 4113 Test oil

Combination No. : 0 402 076 787

Injection pump

Pump designation : PES6P120A720RS3340 EP type number : 0 412 026 773

Governor

Governer design. : RSV400...1050POA602

Soverner no. : 0 421 833 483

Cust. part No. : 87801595

Customer-spec. information

Customer : FNH-GEOTECH

: EP040B Motor Power KW : 176.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C **4**0 Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5 Tolerance bar : \leftarrow 0.1

Overflow quantity

main. L/h Tolerance l/h : ← 20.0

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 bar Tolerance bar : **←** 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : - 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

: **←** 0.10 tolerance mm

Rack travel in mm : 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -390

Tolerance Check

: + 0.50

tolerance *NW : + 0.75

Start of delivery blocking

Check

tolerance $^{\circ}NW$: \leftarrow 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

	}
Rack travel in mm : 11.25 Tolerance mm : + 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rom : 1050
Del. quantity	Aneroid pressure
cm3/1000 strokes : 158.0	+ hPa : 1600 + Del. quantity
Tolerance	- cm3/1000 strokes : 158.0
cm3/1000 strokes : + 1.0	Tolerance
- The strongs .	- cm3/1000 strokes : +- 1.0
Check tolerance	Check tolerance
cm3/1000s : $+6.0$	+ cm3/1000s. : +- 6.0
	+ Spreed
Spreed	+ Tolerance
	+ cm3/1000 strokes : 5.0
Tolerance	+ Check tolerance
cm3/1000 strokes : 5.0	+ cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 9.0	
. 7.0	CONTROL LEVER
	+ control lever
Rated speed rpm : 400	+ position degree : 94.0
	†
Rack travel in mm: 5.00	+ RATED SPEED
Toterance mm : + 0.10	0.05
Del. quantity	rack travel mm : 0.85
cm3/1000 strokes : 26.0	Tolerance mm : + 0.55
Tolerance cm3/1000 strokes : + 3.0	+ Rated speed rpm : 1320
Check tolerance	+ rack travel mm : 4.00
cm3/1000s. : +- 6.0	+ Rated speed rpm : 1165
Spreed	+ Tolerance 1/min : + 15
Tolerance	
cm3/1000 strokes : 8.0	+ ASSEMBLY GOVERNOR SETTING
Check tolerance	+
cm23/1000s. : 12.0	+ Rated speed rpm : 1093
	+ rack travel mm : 10.20
4	†
(B) SETTING OF INJECTION PUMP	+ Rated speed rpm : 1148
WITH GOVERNOR	Tolerance 1/min : + 5
	rack travel mm : 4.00
	+ rack travel mm : 0.85
GUIDE SLEEVE POSITION	+ Tolerance mm : + 0.55
COINE SPEEAS LOSTITOR	+ Rated speed rpm : 1320
	Traced speed (pill)
control lever	+
position degree : -3	Rated speed rpm : 1094
Rated speed rpm : 800	+ rack travel mm : 10.20
	+
Rack travel in mm: 0.50	+ Rated speed rpm : 1149
Tolerance mm : +- 0.20	+ Tolerance 1/min : + 5
_	+ rack travel mm : 4.00
governor spring	1 225
pre-tension	rack travel mm : 0.85
click setting x : 4.25	+ Tolerance mm : + 0.55 + Rated speed rpm : 1320
	+ Rated speed rpm : 1320

Rated speed rpm	: 1095
rack travel mm	: 10.20
Rated speed rpm	: 1150
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mma	: + 0.55
Rated speed rpm	: 1320
Rated speed rpm	: 1096
rack travel mm	: 10.20
Rated speed rpm	: 1151
Tolerance 1/min	: + 5
rack travel mm	: 4.00
rack travel mm Tolerance mm Rated speed rpm	
Rated speed rpm	: 1097
rack travel mm	: 10.20
Rated speed rpm Tolerance 1/min rack travel mm	
rack travel mm	: 0.85
Tolerance mma	: ← 0.55
Rated speed rpm	: 1320
Rated speed rpm	: 1098
rack travel mm	: 10.20
Rated speed rpm	: 1153
Tolerance 1/min	: ← 5
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mma	: ← 0.55
Rated speed rpm	: 1320

control lever position degree : 73.0

Setting point w/out bumper spring

Rated speed rpm : 400 rack travel mm : 4.50

Tolerance mm : + 0.10

Testing:

Rated speed rpm : 400 rack travel mm : 5.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 535
Tolerance 1/min : + 50

TORQUE CONTROL

Rated speed rpm : 1050 rack travel mm : 11.25 Tolerance mm : + 0.05

Rated speed rpm : 700 rack travel mm : 12.40 Tolerance mm : ← 0.05

Rated speed rpm : 600 rack travel mm : 12.50 Tolerance mm : + 0.15

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1600
rack travel mm : 12.50
Tolerance mm : +- 0.10

Rated speed rpm : 500
Pressure hPa : rack travel mm : 8.10
Tolerance mm : +- 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 980 rack travel mm : 11.40 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : 1600 Rated speed rpm : 700 Del. quantity

cm3/1000 strokes : 196.0

Tolerance

cm3/1000 strokes : +-

3.0

Check tolerance C=3/1000S_

: +-6.0

rack travel mm Tolerance mm

12.50 : + 0.15

Aneroid pressure

hPa

Rated speed rpm

500

Del. quantity cm3/1000 strokes :

Tolerance

94.0

cm3/1000 strokes : +-

1.0

Check tolerance cm3/1000s.

4.0

STARTING FUEL DELIVERY

Rated speed rpm

100

reck travel min

20.50

Tolerance mm

: **←** 0.50

Del. quantity

cm3/1000 strokes : 150.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s.

: + 19.0

LOW IDLE

Rated speed rpm :

400

Rack travel in mm :

5.00

Tolerance mm

0.10

Del. quantity

cm3/1000 strokes :

26.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s.

Spreed

: + 6.0

Tolerance

8.0

cm3/1000 strokes :

Check tolerance cm3/1000S.

12.0

End of test specification sheet

H25

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 26.11.97 Edition Edition : 26.11.97
Test oil : ISO 4113

Combination No. : 0 402 076 788

Injection pump

Pump designation: PES6P120A720RS3340 EP type number : 0 412 026 773

6overnor

Governer design. : RSV400...1050P0A603

Governer no. : 0 421 833 484

Cust. part No. : 87801600

Customer-spec. information

Customer : FMH-GEOTECH
Motor : EP 040 B Motor Power KW : 154.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity min. t/h : 100 Tolerance t/h : + 20.0

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : → 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

: +- 0.50 Tolerance

Check

tolerance *NW : + 0.75

Start of delivery blocking

Check

tolerance *NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 10.45 Tolerance mm: + 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050
Del. quantity cm3/1000 strokes : 136.0	Aneroid pressure hPa : 1500 Del. quantity
Tolerance cm3/1000 strokes : + 1.0	cm3/1000 strokes : 136.0 Tolerance cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s. : + 6.0	Check tolerance cm3/1000s. : + 6.0 Spreed
Spreed	Tolerance cm3/1000 strokes : 5.0
Tolerance cm3/1000 strokes : 5.0	Check tolerance cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 9.0	CONTROL LEVER
Rated speed rpm : 400	control lever position degree : 76.0
Rack travel in mm : 4.50	tolerance degree : + 4.0
Tolerance mm : +- 0.10 Del. quantity	RATED SPEED
cm3/1000 strokes : 23.0 Tolerance	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1320
cm3/1000 strokes : + 3.0 + Check tolerance cm3/1000s. : + 6.0	Rated speed rpm : 1320 rack travel mm : 4.00
cm3/1000s. : + 6.0 Spreed Tolerance	Rated speed rpm : 1155 Tolerance 1/min : + 15
cm3/1000 strokes : 8.0 + Check tolerance	ASSEMBLY GOVERNOR SETTING
cm3/1000s. : 12.0	Rated speed rpm : 1093 rack travel mm : 9.45
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1153 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE POSITION	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1320
control lever position degree : - 3 Rated speed rpm : 800	Rated speed rpm : 1094
Rack travel in mm: 0.50	rack travel mm : 9.45
Tolerance mm : + 0.20	Rated speed rpm : 1154 Tolerance 1/min : + 5
governor spring pre-tension	rack travel mm : 4.00
click setting x : 5.00	rack travel mm : 0.85 Tolerance mm : + 0.55

Rated speed rpm	: 1320	Rated speed rpm rack travel mon Tolerance man	: 400 : 5.00 : ← 0.10
Rated speed rpm	: 1095	+	
Rated speed rpm rack travel mm	9.45	Testing:	
Rated speed rpm	: 1155	Rated speed rpm	: 400
Tolerance 1/min	: +- 5	+ rack travel mm	: 4.50
rack travel mm		rack travel mm Tolerance mm	: ← 0.10
rack travel mon	: 0.85	rack travel mm Rated speed rpm Tolerance 1/min	: 2.00
Tolerance ma	: + 0.55	+ Rated speed rpm	: 535
Tolerance man Rated speed rpm	: 1320	+ Tolerance 1/min	: +- 50
Rated speed rpm	: 1096	TORQUE CONTROL	
rack travel mm	9.45	+ Rated speed rpm	: 1050
		🕂 rack travel mm	
Rated speed rpm	: 1156	+ Tolerance mm	: ← 0.05
Tolerance 1/min	: ← 5	†	
rack travel mm	: 4.00	Rated speed rpm rack travel mma Tolerance mam	: 750_
		+ rack travel mm	: 11.30
rack travel mm	: 0.85	† Tolerance ma	: ← 0.10
Tolerance mm Rated speed rpm	: ← 0.55	† Postad according	
Rated speed rpm	: 1320	Rated speed rpm rack travel mm Tolerance mm	. 11 75
		Tolerance mm	
Rated speed rpm	. 1007	T Toterarice in the	: += 0.15
rack travel mm	• 0.45		
I don't date inn	. 7.43	ANEROID/ALTITUDE	
Rated speed rpm	: 1157	+ COMPENSATOR TEST	
Tolerance 1/min		+	
rack travel mm		+	
		+ SETTING	
rack travel ma	: 0.85	† Bodod smood sm	. 500
Tolerance mm Rated speed rpm	: +- U.55	Rated speed rpm Pressure hPa	
rated speed rpm	: 1320	rack travel mm	: 11.30
		- Tolerance ma	
Rated speed rpm	: 1098	-	
rack travel mm	9.45	+ Rated speed rpm	: 500
		+ Pressure hPa	: -
Rated speed rpm Tolerance 1/min	: 1158	rack travel mm Tolerance mm	8.10
Tolerance 1/min	; ← 5	† Tolerance mm	: + 0.10
rack travel mm	: 4.00	† + MEASUREMENT	
rack travel mm	• n. 85	TIENOUNG IETT	
Tolerance mm	: + 0.55	+ Rated speed rpm	: 500
Rated speed rpm	1320	+ Control opening	
		Pressure hPa	: 900
		rack travel mm Tolerance mm	: 10.80
LOW IDLE		† Tolerance mm	: + 0.10
		+	
control lever	. 07.0	FUEL DELIVERY CH.	ADACTEDISTICS
position degree	Y/.U	I FUEL DELIVERY CH.	MRACIERTS ITCS
tolerance degree	; - 4. 0	I	
Setting point w/	out bumper spring	Aneroid pressure	
		+ hPa	: 1500

Rated speed rpm : 750 Del. quantity

cm3/1000 strokes : 167.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

rack travel mm : 11.35
Tolerance mm : + 0.15

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 92.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Check hydraulic start locking and unlocking device with 500...1000 hPa.

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 150.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 400

Rack travel in mm: 4.50 Tolerance mm: + 0.10

Del. quantity

cm3/1000 strokes : 23.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

 $c_{m3}/1000$ s. : +- 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

End of test specification sheet

J01

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 26,11,97 : ISO 4113

Combination No.

: 0 402 076 804

Injection pump

Pump designation : PES6P120A720RS3340 EP type number : 0 412 026 773

Governor

Governer design. : RSV650...1100P8A566

: -2

Governer no.

: 0 421 833 559

Cust. part No. : 87801598

Customer-spec. information

: NH Customer Power KW

: 162.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temo. °C

40

Tolerance °C

: +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 103

Opening pressure

bar

: 208.5

Tolerance bar

: **←** 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : \leftarrow 1.0

: 3.60 Prestroke mm : ← 0.05

Tolerance mm

Check

: + 0.10 tolerance mm

Rack travel in mm: 10.50

: **←** 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery blocking

Check

tolerance *NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1025

Rack travel in mm: 10.80

Tolerance nm : ← 0.05	Rated speed rpm : 1025 Aneroid pressure
Del. quantity cm3/1000 strokes : 143.5	hPa : 1600 Del. quantity
Tolerance	cm3/1000 strokes : 143.5 Tolerance
cm3/1000 strokes : + 1.0	<pre>cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 6.0</pre>
Check tolerance cm3/1000s. : +- 6.0	cm3/1000s. : +- 6.0 Spreed Tolerance
Spreed	cm3/1000 strokes : 5.0 Check tolerance
Tolerance cm3/1000 strokes : 5.0	cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 9.0	CONTROL LEVER
	control lever position degree : 95.0
Rated speed rpm : 650	tolerance degree : +- 4.0
Rack travel in mm: 4.70 + Tolerance mm: + 0.10 +	RATED SPEED
Cel. quantity	rack travel ma : 4.00
cm3/1000 strokes : 23.0	Rated speed rpm : 1105
Tolerance	Tolerance 1/min : + 15
$cm3/1000$ strokes : \leftarrow 3.0	
Check tolerance	ASSEMBLY GOVERNOR SETTING
$cm3/1000s.$: \leftarrow 6.0	
Spreed	Rated speed rpm : 1072
Tolerance	rack travel mm : 9.80
cm3/1000 strokes : 8.0 +	
Check tolerance +	Rated speed rpm : 1100
cm3/1000s. : 12.0 +	Tolerance 1/min : + 5
	rack travel mm : 4.00
†	
(B) SETTING OF INJECTION PUMP	rack travel mm : 0.85
WITH GOVERNOR	Tolerance mm : + 0.55
Ţ	Rated speed rpm : 1350
GUIDE SLEEVE POSITION	Rated speed rpm : 1073
POTTE SPEENE LOSTITON	rack travel mm : 9.80
I	. I dev clasec in
control lever	Rated speed rpm : 1101
position degree : -3	Tolerance 1/min : + 5
Rated speed rpm : 800	rack travel mma : 4.00
+	•
Rack travel in mm: 0.50	rack travel mm : 0.85
Tolerance mm : + 0.20	Tolerance mm : + 0.55
+	Rated speed rpm : 1350
governor spring +	
pre-tension +	
click setting x : 3.75	Rated speed rpm : 1074
†	rack travel mm : 9.80
CHILL LOAD DELYMENT AT FILL LOAD OTOD	. Dehed aread 4400
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1102 Tolerance 1/min : +- 5

rack travel am	: 4.00	† Tolerance ma	: ← 0.10
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1350	rack travel mm Rated speed rpm	: 2.00 : 760
Rated speed rpm rack travel mm	: 9.80	TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 10.80
Rated speed rpm Tolerance 1/min rack travel mm	: +- 5 : 4.00	Rated speed rpm rack travel man Tolerance man	: 11.55
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : ← 0.55 : 1350	Rated speed rpm rack travel mm Tolerance mm	: 11.60
Rated speed rpm rack travel mma	: 9.80	ANEROID/ALTITUDE COMPENSATOR TES	
Rated speed rpm Tolerance 1/min rack travel mm	: +- 5	SETTING	
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : ← 0.55 : 1350	Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1600 : 11.55
Rated speed rpm rack travel mm Rated speed rpm	: 9.80	Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: -
Tolerance 1/min rack travel Nm		MEASUREMENT	
rack travel mm Tolerance mm		Rated speed rpm	: 500
Rated speed rpm	: 1350	Pressure hPa rack travel mm Tolerance mm	: 10.70
LOW IDLE			
control lever	. 74.0	Start interlock	
position degree tolerance degree	: + 4.0	Rated speed rpm Check	. > 100
Setting point w/o	ut bumper spring	speed 1/min	: > 80
Rated speed rpm rack travel mm Tolerance mm	: 650 : 4.20 : ← 0.10	FUEL DELIVERY C	HARACTERISTICS
Testing:		Aneroid pressur	e : 1600
Rated speed rpm rack travel man	: 650 : 4.70	Rated speed rpm	

Rated speed rpm : 650 rack travel man : 4.70

Del. quantity cm3/1000 strokes : 167.5 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s.6.0

rack travel mm : 11.00
Telegrance mm : + 0.15

Aneroid pressure

hPa 500 Rated speed rpm : Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : + 1.0

Check tolerance : +- 4.0 cm3/1000s.

STARTING FUEL DELIVERY

Rated speed rpm : 100 20.50 rack travel mm : : **←** 0.50 Tolerance ma Del. quantity

cm3/1000 strokes : 145.0

Tolerance

cm3/1000 strokes : \leftarrow 15.0

Check tolerance

cm3/1000s. : **←** 19.0

LOW IDLE

Rated speed rpm : 650

Rack travel in mm: 4.70 Tolerance mm : +- 0.10 Del. quantity 23.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s.: +- 6.0 Spreed Tolerance cm3/1000 strokes : 8.0

Check tolerance 12.0

cm3/1000s.

End of test specification sheet

J05

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.05.97 Edition : ISO 4113 Test oil

Combination No. : 0 402 076 807

Injection pump

Pump designation : PES6P120A7ZORS3378 EP type number : 0 412 026 799

Governor

Governer design. : RSV450...1050P5A647

Governer no. : 0 421 833 564

Cust. part No. :

Customer-spec. information : IVECO-FIAT Customer : 8365,26,532 Motor

Power KW : 117.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : + 2.0 Tolerance °C

Overflow valve : 2 417 413 034

Inlet press. bar : 2.5

Overflow quantity

min. l/h : 260 Tolerance l/h : \leftarrow 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : \leftarrow 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.55
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300 Tolerance

Check

: +- 0.50

tolerance *NW

: +- 0.75

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 8.55

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 115.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 4.0	Check tolerance cm3/1000s. : +- 4.0
	Spreed
Spreed	Tolerance
Talamana	cm3/1000 strokes : 5.0 Check tolerance
Tolerance + cm3/1000 strokes : 5.0 +	cm3/1000s. : 9.0
- t	
Check tolerance + cm3/1000s. : 9.0	
Cas/10003: . /.0	CONTROL LEVER
+	control lever
Rated speed rpm : 450	position degree : 113.0
Rack travel in mm: 4.60	RATED SPEED
Tolerance and : + 0.10	rack travel mm : 7.40
Del. quantity	Rated speed rpm : 1095
cm3/1000 strokes : 20.0	Tolerance 1/min : + 5
Tolerance	Check
cm3/1000 strokes : ← 3.0 }	speed 1/min : + 10
Check tolerance	
cm3/1000s. : \leftarrow 6.0	rack travel mm : 4.00
Spreed	Rated speed rpm : 1125
Tolerance	Tolerance 1/min : +- 15
cm3/1000 strokes : 8.0	rack travel mm : 0.85
Check tolerance + cm3/1000s. : 12.0	rack travel mm : 0.85 Tolerance mm : + 0.55
cm3/1000s. : 12.0	Rated speed rpm : 1400
${ m I}$	Nated Speed (piii : 1400
(B) SETTING OF INJECTION PUMP	rack travel mm : 4.00
WITH GOVERNOR	Rated speed rpm : 1130
+	Tolerance 1/min : +- 15
+	Check
+	speed 1/min : + 20
GUIDE SLEEVE POSITION +	
†	
control lever	
position degree : -3	LOW IDLE
Rated speed rpm : 800	
1	
Rack travel in mm: 0.50	control lever
Tolerance mm : + 0.20 +	position degree : 91.0
†	Satting point which burner coming
governor spring	Setting point w/out bumper spring
pre-tension tick setting x : 2.50	Rated speed rpm : 450
terick setting x . 2.50	rack travel mm : 4.10
	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	
+	Testing:
Rated speed rpm : 1050	
Aneroid pressure	Rated speed rpm : 450
hPa : -	rack travel mm : 4.60
Del. quantity	Tolerance 😭 : +- 0.10
cm3/1000 strokes : 115.0	
Tolerance	rack travel mm : 2.00 Rated speed rpm : 570
cm3/1000 strokes : + 1.0	Tolerance 1/min : +- 50
†	infermentally in the office in the content of the c

	: 1050 : 8.55 : + 0.05
Rated speed rpm	: 700
rack travel mm	: 8.60
Tolerance mm	: ← 0.10
Rated speed rpm	: 320
rack travel mm	: 9.10
Tolerance mm	: + 0.20
Raïed speed rpm	: 450
rack travel mm	: 8.60
Tolerance mm	: ← 0.20

בו וכו	DEI THERY	CHARACTERISTICS
ruei.	DELIVERI	CHARMCIEKISITES

Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - 700 : 106.0 : + 3.0 : + 6.0	
rack travel mm Tolerance mm	: 9.10 : + 0.20	_

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm Tolerance mm	: : : +	100 9.50 - 0.50
Del. quantity cm3/1000 strokes	• '	110.0
Tolerance cm3/1000 strokes	: +	- 15.0
Check tolerance cm3/1000s.	: +	- 19.0

LOW IDLE

Rated speed rpm : 450

Rack travel in mm Tolerance mm	:	+-	4.60 0.10
Del. quantity cm3/1000 strokes Tolerance	:		20.0
cm3/1000 strokes Check tolerance	:	+-	3.0
cm3/1000s. Spreed Tolerance	:	+-	6.0
cm3/1000 strokes Check tolerance	:		8.0
cm3/1000s.	:		12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 26.11.97 Test oil : ISO 4113

Combination No. : 0 402 076 810

Injection pump

Pump designation : PES6P120A720RS3340 : EP type number : 0 412 026 773

6overnor

Governer design. : RSV650...1050P8A566

: -4

Governer no. : 0 421 833 583

Cust. part No. : 87801590

Customer-spec. information

Customer : NH

Motor : EP 040 B Power KW : 198.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50
Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

Check

tolerance *NW : + 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1025

Rack travel in mm: 12.35

J09

Tolerance mm : + 0.05	- Rated speed rpm : 1025 - Aneroid pressure
Del. quantity cm3/1000 strokes : 183.0	- hPa : 1600 - Del. quantity
	- cm3/1000 strokes : 183.0
Tolerance cm3/1000 strokes : + 1.0	- Tolerance - cm3/1000 strokes : +- 1.0 - Check tolerance
Check tolerance cm3/1000s. : +- 6.0	- cm3/1000s. : +- 6.0 - Spreed - Tolerance
Spreed	- cm3/1000 strokes : 5.0 - Check tolerance
Tolerance cm3/1000 strokes : 5.0	- cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 9.0	- CONTROL LEVER
	- control lever
Rated speed rpm : 650	- position degree : 95.0
Rack travel in mm: 4.60	ASSEMBLY GOVERNOR SETTING
Del. quantity	- Rated speed rpm : 1067
cm3/1000 strokes : 23.0 -	- rack travel mm : 11.39
cm3/1000 strokes : + 3.0	Rated speed rpm : 1097
Check tolerance - cm3/1000s. : +- 6.0	- Tolerance 1/min : +- 5 - rack travel mm : 4.00
cm3/1000s. : +- 6.0 Spreed	- rack travet man : 4.00
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 8.0 - Check tolerance	- Tolerance mm : +- 0.55 - Rated speed rpm : 1300
cm3/1000s. : 12.0	- Kared Speed (pm : 1500
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1068 - rack travel mm : 11.30
ATH COACULOR	Rated speed rpm : 1098
 	Tolerance 1/min : +- 5
GUIDE SLEEVE POSITION	- rack travel mm : 4.00
	rack travel mm : 0.85
and the same	Tolerance mm : + 0.55 Rated speed rpm : 1300
control lever - position degree : - 3	- Rated speed rpm : 1500
Rated speed rpm : 800	
Park Association and August 20 50	Rated speed rpm : 1069 rack travel mm : 11.30
Rack travel in mm: 0.50 - Tolerance mm: + 0.20 -	rack travel mm : 11.30
	Rated speed rpm : 1099
governor spring	Tolerance 1/min : + 5
pre-tension - click setting x : 2.50 -	rack travel mm : 4.00
ocion occerning A . E. 20	rack travel mm : 0.85
	Tolerance mm ; + 0.55
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 1300

Rated speed rpm rack travel mm	: 1070 : 11.30	
Rated speed rpm	: 1100	
Tolerance 1/min		
rack travel ma	: 4.00	
rack travel mm	: 0.85	
Tolerance ma	: +- 0.55	
Rated speed rpm	: 1300	
Retail amount ann	: 1071	
Rated speed rpm rack travel mms	: 1071 : 11.30	
Rated speed rpm		
Tolerance 1/min rack travel mm	: ← 5 : 4.00	
I GUN LI GYEL ISS		
rack travel mm	: 0.85	
Tolerance mm	: ← 0.55 : 1300	
Rated speed rpm	; 1300	
Rated speed rpm	: 1072	
rack travel mm	: 11.30	
Rated speed rpm	: 1102	
Tolerance 1/min rack travel mm	: + 5 : 4.00	
LGCK FLGACE HEN	. 4.00	
rack travel mm	: 0.85 : ← 0.55	
Tolerance mm		
Rated speed rpm	: 1300	
LOW IDLE		
LOW IDLE		
control lever		
	: 76.0	
control lever position degree	: 76.0 out bumper spring	
control lever position degree Setting point w/o	out bumper spring : 650	
control lever position degree Setting point w/o Rated speed rpm rack travel mm	out bumper spring : 650 : 4.10	
control lever position degree Setting point w/o Rated speed rpm	out bumper spring : 650	
control lever position degree Setting point w/o Rated speed rpm rack travel mm	out bumper spring : 650 : 4.10	
control lever position degree Setting point w/c Rated speed rpm rack travel mm Tolerance mm Testing: Rated speed rpm	out bumper spring : 650 : 4.10 : + 0.10 : 650	
control lever position degree Setting point w/d Rated speed rpm rack travel mm Tolerance mm Testing: Rated speed rpm rack travel mm	out bumper spring : 650 : 4.10 : + 0.10 : 650 : 4.60	
control lever position degree Setting point w/c Rated speed rpm rack travel mm Tolerance mm Testing: Rated speed rpm	out bumper spring : 650 : 4.10 : + 0.10 : 650	
control lever position degree Setting point w/d Rated speed rpm rack travel mm Tolerance mm Testing: Rated speed rpm rack travel mm	<pre>cout bumper spring : 650 : 4.10 : + 0.10 : 650 : 4.60 : + 0.10</pre>	

Rated speed rpm rack travel mma Tolerance mma Rated speed rpm rack travel mma Tolerance mma Rated speed rpm rack travel mma Tolerance mma	: 1025 : 12.35 : ← 0.05 : 750 : 13.05 : ← 0.10 : 650 : 13.10 : ← 0.15
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1600
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 7.80 : + 0.15
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 980 : 11.60 : + 0.10
Start interlock	
Rated speed rpm	: > 700
Check speed 1/min	: > 80
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1600 : 750 : 210.0 : + 3.0 : + 6.0
	

TORQUE CONTROL

rack travel mm : 13.10 : + 0.15Tolerance mm Aneroid pressure

hPa Rated speed rpm 500

Del. quantity cm3/1000 strokes : 86.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : **←** 4.0

STARTING FUEL DELIVERY

100 Rated speed rpm : rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity

cm3/1000 strokes : 150.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : → 19.0

LOW IDLE

Rated speed rpm : 650

Rack travel in mm: 4.60 Tolerance mm : +- 0.10 Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s. : ← 6.0 Spreed

Tolerance

8.0 cm3/1000 strokes :

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 26.11.97 Test oil : ISO 4113

Combination No. : 0 402 076 816

Injection pump

Pump designation : PES6P120A720RS3340 EP type number : 0 412 026 773

6overnor

6overner design. : RSV650...1100P8A566

: -5

Governer no. : 0 421 833 601

Cust. part No. : 87801596

Customer spec. information Customer : NH

Power KW : 177.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 086

Inlet press. bar : 1.5

Overflow quantity

min. L/h : 120 Tolerance L/h : ← 20.0

Test nozzle holde

assembly : 1 688 901 103

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.60
Tolerance mm : - 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance "NW : + 0.75

Start of delivery blocking

Check

tolerance *NW : +- 0.30

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1025	
	FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm : 11.45 + Tolerance mm : + 0.05	Rated speed rpm : 1025
Toterance min . += 0.05	Aneroid pressure
Del. quantity	hPa : 1600
cm3/1000 strokes : 159.0	Del. quantity cm3/1000 strokes : 159.0
Tolerance	Tolerance
cm3/1000 strokes : + 1.0	cm3/1000 strokes : + 1.0
Charl Adams -	Check tolerance cm3/1000s. : +- 6.0
Check tolerance + 6.0 +	cm3/1000s. : +- 6.0 Spreed
	Tolerance
Spreed	cm3/1000 strokes : 5.0
Tolerance	Check tolerance cm3/1000s. : 9.0
cm3/1000 strokes : 5.0	CIR27 10000
Check tolerance + cm3/1000S: : 9.0 +	CONTROL LEVER
(11.57 100505 . 7.0	CONTINUE ELTEN
+	control lever
Rated speed rom : 650	position degree : 97.0
Rated speed rpm : 650 +	RATED SPEED
Rack travel in mm: 4.60	
Tolerance nn : + 0.10	rack travel mm : 4.00
Del. quantity + cm3/1000 strokes : 23.0 +	Rated speed rpm : 1100 Tolerance 1/min : +- 15
Tolerance	Total difference in a second s
cm3/1000 strckes : + 3.0	ASSEMBLY GOVERNOR SETTING
Check tolerance + 6.0 +	Rated speed rpm : 1067
Spreed	rack travel mm : 10.40
Tolerance	
cm3/1000 strokes : 8.0 +	Rated speed rom : 1097 Tolerance 1/min : +- 5
cm3/1000s. : 12.0	rack travel mm : 4.00
+	
(D) SETTING OF THISCOTION DIME	rack travel mm : 0.85 Toleranse mm : + 0.55 Rated speed rpm : 1250
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rom : 1250
+	
†	Poted speed speed 4049
GUIDE SLEEVE POSITION	Rated speed rpm : 1068 rack travel mm : 10.40
COLUMN DECEMBER 1 VOLUME	
†	Rated speed rpm : 1098
control lever position degree : - 3	Tolerance 1/min : + 5 rack travel mm : 4.00
Rated speed rpm : 800	
+	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1250
Rack travel in mm: 0.50 + Tolerance mm: + 0.20 +	loterance mm : +- U.>> Rated speed rom : 1250
Total control of the second se	nated speed (pin . 1250
governor spring +	
pre-tension the click setting x : 3.75	Rated speed rpm : 1069 rack travel mm : 10.40
CLICK SECLING A . J./J T	1805 C1876 CHHH . 10.90

Rated speed rpm Tolerance 1/min rack travel mm	: ← 5
rack travel mm Tolerance mm Rated speed rpm	
Rated speed rpm rack travel mm	: 1070 : 10.40
Rated speed rpm Tolerance 1/min rack travel mm	: ← 5
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : \(\to 0.55 : 1250
Rated speed rpm rack travel mm	: 1071 : 10.40
Rated speed rpm Tolerance 1/min rack travel mm	: 1101 : + 5 : 4.00
rack travel mm Tolerance mm Rated speed rpm	: +- 0.55
Rated speed rpm rack travel mm	: 1072 : 10.40
Rated speed rpm Tolerance 1/min rack travel mm	: ← 5
rack travel mm Tolerance mm Rated speed rpm	: ← 0.55
LOW IDLE	
control lever position degree	
Setting point w/o	out bumper spring
Rated speed rpm rack travel mm Tolerance mm	: 650 : 4.10 : + 0.10

Rated speed rpm rack travel mm Tolerance mm	: 650 : 4.60 : + 0.10
rack travel mma Rated speed rpma	: 2.00 : 700
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1025 : 11.45 : + 0.05
Rated speed rpm rack travel man Tolerance man	: 800 : 12.30 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 750 : 12.35 : + 0.15
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1600 : 12.30 : ← 0.15
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 7.80 : + 0.15
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 1050 : 11.50 : + 0.10
Start interlock	
Rated speed rpm	: > 100
Check speed 1/min	: > 80
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa	: 1600

Testing:

800 Rated speed rpm Del. quantity cm3/1000 strokes : 185.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : + 6.012.35 rack travel mm Tolerance mm : + 0.15 Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 86.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance 4.0 cm3/1000s. STARTING FUEL DELIVERY 100 Rated speed rom : 20.50 rack travel mm : +- 0.50 Tolerance man Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : \leftarrow 15.0 Check tolerance cm3/1000S. : + 19.0 LOW IDLE Rated speed rpm : 650 4.60 Rack travel in mm: 0.10 Tolerance nm Del. quantity 23.0 cm3/1000 strokes : Tolerance cm3/1000 strokes : +-3.0 Check tolerance

6.0

8.0

12.0

End of test specification sheet

cm3/1000s. Spreed Tolerance

cm3/1000s.

cm3/1000 strokes : Check tolerance

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 17.03.98 Test oil : ISO 4113

Combination No. : 0 402 086 702

Injection pump

Pump designation : PES6P100B321RS3388 EP type number : 0 412 006 714

Governor

Governer design. : RSV400...1125P0A674

Governer no. : 0 421 833 592

Cust. part No. : 51.11103-7564

Customer-spec. information

Customer : MAN

Motor : 00826 LE531

Power KW : 191.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 150 Tolerance l/h : ← 10.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.30 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 13.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : ← 0.75

Start of delivery blocking

Tolerance : \leftarrow 0.10

Check

tolerance NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 925

†	
Rack travel in mm: 14.10 Tolerance mm: : + 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 174.0	Rated speed rpm : 925 Aneroid pressure
Tolerance	hPa : 1500 Del. quantity cm3/1000 strokes : 174.0
Check tolerance	Tolerance cm3/1000 strokes : + 1.0
cm3/1000s. : + 4.0	Check tolerance cm3/1000S. : + 4.0
Spreed	Spreed Tolerance
Tolerance cm3/1000 strokes : 4.0	cm3/1000 strokes : 4.0 Check tolerance
Check tolerance cm3/1000s. : 6.0	cm3/1000s. : 6.0
<u> </u>	CONTROL. LEVER
Rarted speed rpm : 400	control lever
†	position degree : 104.0
Rack travel in mm: 4.90 Tolerance mm: + 0.10	tolerance degree : +- 4.0
Del. quantity + cm3/1000 strokes : 25.0 +	RATED SPEED : 12.60
Tolerance +	Rated speed rpm : 1175
cm3/1000 strokes : + 3.0 +	Tolerance 1/min : + 5
Check tolerance + 6.0 +	rack travel mm : 4.00
Spreed	Rated speed rpm : 1265
Tolerance +	Tolerance 1/min : + 15
cm3/1000 strokes : 3.5	
Check tolerance	rack travel mm : 0.85
cm3/1000s. : 5.5	Tolerance mm : +- 0.55 Rated speed rpm : 1400
(D) CETTING OF THUESTIAN DIMO	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP +	Rated speed rpm : 1270
WITH GOVERNOR	Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	
I	LOW IDLE
control lever +	
position degree : -3 +	
Rated speed rpm : 800	control lever
Rack travel in mm : 0.50 +	position degree : 80.0 tolerance degree : +- 4.0
Tolerance mm : + 0.20	coter arice degree . The 4.0
governor spring	Setting point w/out bumper spring
pre-tension +	Rated speed rpm : 400
click setting x : 5.00	rack travel mm : 4.40
‡	Tolerance mm : ← 0.10

Testing:

Rated speed rpm rack travel mm Tolerance mm	: +-	400 4.90 0.10
		2 00

rack travel mm	:	2.00
Rated speed rpm	:	500
Tolerance 1/min	: 1	⊢ 30

TORQUE CONTROL			
Rated speed rpm	:		925
rack travel mm	:		14.10
Tolerance mm	:	+-	0.05

kated speed rpm	:	1125
rack travel mm	:	13.60
Tolerance mm	:	← 0.05

Rated speed rpm	:	700
rack travel mm	:	14.15
Tolerance mm	: +	- 0.10

Rated speed rpm	:	1025
rack travel mm	:	13.95
Tolerance mm	:	← 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	1500
rack travel mm	:	14.10
Tolerance mm	:	→ 0.15

Rated speed rpm	:	500
Pressure hPa	:	_
rack travel mm	:	9.45
Tolerance mm	2.4	- 0.15

MEASUREMENT

Rated	speed	rpm	:	500
-------	-------	-----	---	-----

Pressure hPa	:	150
rack travel mm	:	9.75
Tolerance mm	: +	- 0.05

Pressure hPa	:	800
rack travel mm	:	13.05
Tolerance and	: +	- 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	1500
Rated speed rpm	:	1125
Del. quantity		
cm3/1000 strokes	:	161.0
Tolerance		
cm3/1000 strokes	: 1	⊢ 3.0

5.0

Aneroid pressure	•	1	500
Rated speed rpm	:		700
rack travel mm	:		14.15
Tolerance mm	:	+-	0.10
Del. quantity			407.0
cm3/1000 strokes	•		187.0
Tolerance cm3/1000 strokes	:	+	3.0
Check tolerance cm3/1000s.	:	+-	6.0

Aneroid pressure			
hPa	:		_
Rated speed rpm	:		500
Del. quantity cm3/1000 strokes	:		91.0
Tolerance cm3/1000 strokes	*	-	1.0
Check tolerance cm3/1000S.	:	+-	4.0

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		9.45
Tolerance mm	:	+-	0.45
Del. quantity			
cm3/1000 strokes	:		112.0
Tolerance			
cm3/1000 strokes	:	+-	10.0
Check tolerance			
cm3/1000s.	:	+-	14.0

LOW IDLE

Rated speed rpm	:	400
Rack travel in mm Tolerance mm	: +-	4.90 0.10

:	25.0
: +-	3.0
: +-	6.0
:	3.5
:	5.5
	: : +- : +-

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 17.03.98 Edition : ISO 4113 Test oil

Combination No. : 0 402 086 704

Injection pump

Pump designation: PES6P100B321RS3388. EP type number : 0 412 006 714

Governor

Governer design. : RSV400...1125P0A693

: D 421 833 616 Governer no.

: 51.11103-7607 Cust. part No.

Customer-spec. information

: MAN Customer

: DO826 LE531 Motor

: 191.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : + 2.0 Tolerance °C

· 1 417 413 047 Overflow valve

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

150 min. L/h : **←** 10.0 Tolerance L/h

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

: 3.30 Frestroke mm : +- 0.05 Tolerance mm

Check

: + 0.10tolerance mm

Rack travel in mm: 13.50 Tolerance mm : +- 0.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

: +- 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Start of delivery blocking

: + 0.10Tolerance

Check

tolerance $^{\bullet}NW$: \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

925 Rated speed rpm :

	t	Aneroid pressure	4500
Rack travel in mon Tolerance mon	: 14.10 : + 0.05	hPa Del. quantity	: 1500
Del. quantity cm3/1000 strokes	: 174.0	cm3/1000 strokes Tolerance cm3/1000 strokes	
Tolerance	174.0	Check tolerance cm3/1000s.	: +- 4.0
cm3/1000 strokes	: + 1.0	Spreed Tolerance	. +- 4.0
Check tolerance cm3/1000s.	: + 4.0	cm3/1000 strokes Check tolerance cm3/1000s.	: 4.0 : 6.0
Spreed		Chis/ 100gs.	. 0.0
Tolerance cm3/1000 strokes	: 4.0	RATED SPEED rack travel nm Rated speed rpm	: 12.60 : 1175
Check tolerance cm3/1000s.	: 6.0	Tolerance 1/min	: +- 5
		rack travel mm Tolerance mm Rated speed rpm	: 0.85 : +- 0.55 : 1400
Rated speed rpm	: 400	rack travel mm	: 4.00
Rack travel in mm Tolerance mm Del. quantity		Rated speed rpm Tolerance 1/min	: 1270 : + 15
cm3/1000 strokes Tolerance	: 25.0		
cm3/1000 strokes Check tolerance	+	LOW IDLE	
cm3/1000s. Spr eed	: + 6.0	Setting point w/o	our bumper spring
Tolerance cm3/1000 strokes	: 3.5	Rated speed rpm	
Check tolerance cm3/1000s.	: 5.5	rack travel mm Tolerance mm	: 4.40 : +- 0.10
(B) SETTING OF IN	IECTION DIMP	Testing:	
WITH GOVERNOR	T T T T T T T T T T T T T T T T T T T	Rated speed rpm rack travel mm Tolerance mm	: 4.90
GUIDE SLEEVE POSI	TION		
301/2 02272 1001	1	TORQUE CONTROL Rated speed rpm	: 925
control lever position degree	: - 3	rack travel mm Tolerance mm	: 14.10
governor spring pre-tension click setting x	: 5.00	Rated speed rpm rack travel mm Tolerance mm	: 1125 : 13.60 : + 0.05
pre-tension click setting x	: 5.00 Y AT FULL LOAD STOP	Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 13.60 : + 0.05 : 700 : 14.15

rack travel mm Tolerance mm	: 13.95 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 14.10 : ← 0.15
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 9.45 : + 0.15
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 150 : 9.75 : + 0.05
Pressure hPa rack travel mma Tolerance mma	: 800 : 13.05 : + 0.15
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1500 : 1125 : 161.0 : + 3.0 : + 6.0
Aneroid pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 1500 : 700 : 14.15 : ← 0.10

Aneroid pressure			
hPa	:		
Rated speed rpm Del. quantity	:	500	
cm3/1000 strokes	•	91.0	
Tolerance	•	, , , , ,	
cm3/1000 strokes	: +	1.0	
Check tolerance			
cm3/1000s.	: +-	4.0	
STARTING FUEL DEL	IVERY	•	
Rated speed rpm	:	100	
rack travel mm	:	9.45	
Tolerance mm	: +-	0.45	
Del. quantity	•	0.45	
cm3/1000 strokes	:	112.0	
Tolerance	•	112.0	
cm3/1000 strokes		10.0	
Check tolerance		10.0	
cm3/1000s.	٠ ـــ	14.0	
CIRC/ 10003.		14.0	
LOW IDLE			
LOW IDLE Rated speed rpm	:	400	
Rated speed rpm			
Rated speed rpm Rack travel in mm		400 4.90 - 0.10	
Rated speed rpm Rack travel in mm Tolerance mm	:	4.90	na amatingen agair, agair ag
Rated speed rpm Rack travel in mm	: +	4.90	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: +	4.90 - 0.10 25.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: +	4.90 - 0.10	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: +	4.90 0.10 25.0 - 3.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +	4.90 - 0.10 25.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: +	4.90 0.10 25.0 - 3.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Spreed Tolerance	: +	4.90 0.10 25.0 - 3.0 - 6.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: +	4.90 0.10 25.0 - 3.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + : + :	4.90 0.10 25.0 3.0 6.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: +	4.90 0.10 25.0 - 3.0 - 6.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + : + :	4.90 0.10 25.0 3.0 6.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + : + :	4.90 0.10 25.0 3.0 6.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + : + :	4.90 0.10 25.0 3.0 6.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: + : + :	4.90 0.10 25.0 3.0 6.0	

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 17.03.98 Test oil : ISO 4113

Combination No. : 0 402 086 705

Injection pump

Pump designation : PES6P100B321RS3388

EP type number : 0 412 006 714

Governor

Governer design. : RSV400...1125POA694

Governer no. : 0 421 833 617

Cust. part No. : 51.10100-7377

Customer—spec. information

Customer : MAN

Motor : 00826 LE527

Power KW : 169.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 150
Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x length mma : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.30
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 13.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tclerance *NW : + 0.75

Start of delivery blocking

Tolerance : \leftarrow 0.10

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 925

Rack travel in mm: 13.90 Tolerance mm: : + 0.05	Aneroid hPa Del. qua cm3/1000
Del. quantity cm3/1000 strokes : 169.0	Tolerance cm3/1000 Check to
Tolerance cm3/1000 strokes : + 1.0	+ cm3/1000 + Spreed + Tolerance
Check tolerance cm3/1000s. : + 4.0	+ cm3/1000 + Check to - cm3/1000
Spreed	+
Tolerance cm3/1000 strokes : 4.0	RATED SP rack tra Rated sp
Chack tolerance cm3/1000S. : 6.0	+ Toleranc
	+ rack tra + Toleranc + Rated sp
Rated speed rpm : 400	İ
Rack travel in mm : 4.80 Tolerance mm : + 0.10	ļ
Del. quantity cm3/1000 strokes : 25.0	+ LOW IDLE
Tolerance cm3/1000 strokes : +- 3.0	Setting
Check tolerance	Rated sp
cm3/1000s. : +- 6.0 Spreed	+ rack tra + Toleranc
Tolerance cm3/1000 strokes : 3.5 Check tolerance	Testing:
cm3/1000s. : 5.5	Rated sp
(D) CETTING OF THESETION OF THE	Toleranc
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Į
	+ TORQUE C + Rated sp
	+ rack tra
GUIDE SLEEVE POSITION	† Toleranc
	+ Rated sp
control lever position degree : - 3	rack tra
governor_spring	Rated sp
pre-tension click setting x : 5.50	+ rack tra + Toleranc
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated sp
	+ Toleranc

Aneroid pressure	: 1500
Del. quantity cm3/1000 strokes	: 169.0
Tolerance cm3/1000 strokes Check tolerance	: ← 1.0
cm3/1000s. Spreed	: +- 4.0
Tolerance cm3/1000 strokes Check tolerance	: 4.0
cm3/1000s.	: 6.0
RATED SPEED rack travel am Rated speed rpm Tolerance 1/min rack travel mm	: 12.10 : 1175 : ← 5 : 0.85
Tolerance mm Rated speed rpm	: ← 0.55 : 1400
LOW IDLE	
Setting point w/o	out bumper spring
Setting point w/o Rated speed rpm rack travel mm Tolerance mm	, , ,
Rated speed rpm rack travel mm	: 400 : 4.30
Rated speed rpm rack travel mm Tolerance mm	: 400 : 4.30 : ← 0.10
Rated speed rpm rack travel mm Tolerance mm Testing: Rated speed rpm rack travel mm	: 400 : 4.30 : + 0.10
Rated speed rpm rack travel mm Tolerance mm Testing: Rated speed rpm rack travel mm Tolerance mm ToRQUE CONTROL Rated speed rpm rack travel mm	: 400 : 4.30 : + 0.10 : 400 : 4.80 : + 0.10
Rated speed rpm rack travel mm Tolerance mm Testing: Rated speed rpm rack travel mm Tolerance mm ToRQUE CONTROL Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm	: 400 : 4.30 : + 0.10 : 400 : 4.80 : + 0.10 : 925 : 13.90 : + 0.05

Rated speed rpm : 925

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 14.00
Tolerance mm : ← 0.10

Rated speed rpm : 500
Pressure hPa : rack travel mm : 9.50
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 150
rack travel mm : 10.00
Tolerance mm : + 0.05

Pressure hPa : 800 rack travel mm : 13.20 Tolerance mm : + 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure
hPa : 1500
Rated speed rpm : 1125
Del. quantity
cm3/1000 strokes : 146.5
Tolerance
cm3/1000 strokes : + 3.0
Check tolerance

cm3/1000s : ← 6.0

Aneroid pressure 1500 hPa 700 Rated speed rpm 14.00 rack travel ma : + 0.10Tolerance ma Del. quantity cm3/1000 strokes : 180.5 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000S. : **←** 6.0

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 90.0
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 9.50 Tolerance mm : + 0.20 bel. quantity cm3/1000 strokes : 112.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm5/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 400 4.80 Rack travel in mm: : +- 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 25.0 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance : → 6.0 cm3/1000s. Spreed Tolerance 3.5 cm3/1000 strokes : Check tolerance 5.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.09.94 Test oil : ISO 4113

Combination No. : 0 402 638 807

Injection pump

Pump designation : PE8P120A120LS7127 EP type number : 0 412 628 817

Governor

Governer design. : RQ300/1100PA134-3 Governer no. : 0 421 801 655

Cust. part No. :

Customer-spec. information

Sustaner : SNF

Motor : WD 815.72/73

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.15
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 8.50 Tolerance mm : + 0.50

Firing order : 1-5-4-8-6 :-3-7-2

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.30

Check

tolerance *N₩ : + 0.75

Start of delivery mark

Barrel no. : i

BASIC SETTING

Del. quantity cm3/1000 strokes :

cm3/1000 strokes : 134.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance cm3/1000 strokes : 5.0	<u> </u>
	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. : 9.0	
	+ control lever + position degree : -1
Rated speed rpm : 300	Rated speed rpm : 600
	Rack travel in mm: 16.00
Rack travel in mm: 6.60 Tolerance mm: : + 0.10 Del. quantity	Tolerance man : + 0.60
cm3/1000 strokes : 20.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 3.0 Check tolerance	Rated speed rpm : 500 Aneroid pressure
cm3/1000s. : + 6.0 Spreed	inPa : - Del. quantity
Tolerance	+ cm3/1000 strokes : 134.0
cm3/1000 strokes : 8.0 Check tolerance	Tolerance cm3/1000 strokes : +- 1.0
cm3/1000s. : 12.0	+ Check tolerance + cm3/1000S. : + 4.0 + Spreed
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance - cm3/1000 strokes : 5.0
	Check tolerance cm3/1000s. 9.0
GUIDE SLEEVE TRAVEL	
Rated speed rpm : 1156	CONTROL LEVER
guide sleeve travel mm : 6.44	- CONTROL LEVER
Tolerance mm : + 0.10	control lever position degree : 109.0
Rated speed rpm : 300 guide sleeve	tolerance degree : + 4.0
travel an : 1.55	+ RATED SPEED
Tolerance mma : ← 0.10	rack travel mm : 13.30 Rated speed rpm : 1153
Rated speed rpm : 1100 guide sleeve	Tolerance 1/min : +- 8
travel mm : 6.00	rack travel mma : 4.00
Tolerance mme : +- 0.10	+ Rated speed rpm : 1245 + Tolerance 1/min : +- 15
Rated speed rpm : 427 guide sleeve	rack travel mm : 0.50
travel mm : 4.88	+ Tolerance mm : + 0.50
Tolerance mm : + 0.10	Rated speed rpm : 1350
Rated speed rpm : 510 guide sleeve	‡
travel mm : 6.00 Tolerance mm : + 0.10	LOW IDLE
Rated speed rpm : 1310	‡
guide sleeve	control lever
travel mm : 11.50 Tolerance mm : + 0.50	position degree : 79.0 tolerance degree : + 4.0
	•

Setting point w/out bumper spring

Rated speed rom : 200

CRT am min. : > 8.00

Testina:

300 Rated speed rpm 6.60 rack travel mm Tolerance ma : + - 0.10

2.00 rack travel mm Rated speed rpm 420 20 Tolerance 1/min : +-

TORQUE CONTROL

: 1100 Rated speed rpm rack travel mm 14.55 : +- 0.15 Tolerance mm

500 Rated speed rom 14.55 rack travel mm : : + 0.15Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 1500 Pressure hPa : 14.55 rack travel mm : + 0.15Tolerance mm

500 Rated speed rpm Pressure hPa 10.15 rack travel mm : +- 0.05 Tolerance mm

MEASUREMENT

500 Rated speed rpm

490 Pressure hPa 11.25 rack travel mm : + 0.10Tolerance mm

790 Pressure hPa 13.25 rack travel mm : + 0.05Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Pa	:	1500
Rated speed rpm	:	1100

Del. quantity

Aneroid pressure

cm3/1000 strokes : 214.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance cm3/1000s.

: +- 5.0 Spreed

Tolerance

12.0 cm3/1000 strokes :

Check tolerance

15.0 cm3/1000s.

Aneroid pressure

1500 hPa 500 Rated speed rpm 14,55 rack travel mm : + 0.15Toterance mm Del. quantity

cm3/1000 strokes : 238.0 Tolerance

cm3/1000 strokes : +-3.0 Check tolerance

cm3/1000s.

: +-6.0

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 16.00 : +- 0.50 Tolerance mm Del. quantity

cm3/1000 strokes : 195.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: 6.60 Tolerance mm : ← 0.10 Del. quantity cm3/1000 strokes : 20.0 Tolerance

cm3/1000 strokes : +-3.0 Check tolerance

: +-

6.0

Spreed

cm3/10073.

Tolerance cm3/1000 strokes : 8.0

Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 09.08.94 Edition Test oil : ISO 4113

Combination No. : 0 402 640 843

Injection pump

Pump designation : PE12P12OA52OLS7877

EP type number : 0 412 620 840

Governor

Governer design. : RQ750PA1158 Governer no. : 0 421 801 727

Cust. part No. : 51.11103-7282

Customer-spec. information

: MAN Customer

Notor : D2842LE201 Power KW : *5*32.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 Tolerance bar 1.5

Test Lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 : +- 0.05 Tolerance mm

Check

tolerance mm : **←** 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

: 12- 1- 5- 9- 8 Firing order

: - 3- 4- 11- 10 : - 2- 6- 7

: 0-45-60-105-120 Phasing

: -165-180-225-240

: -285-300-345

Tolerance : ÷- 0.30

Check

tolerance *NW : +- 0.75

Start of delivery mark

Barrel no. : 12

BASIC SETTING

700 Rated speed rpm :

Rack travel in mm: 14.80 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 350.0

K03

Tolerance cm3/1000 strokes	: +- 1.0	<u> </u>
Check tolerance		FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: + 4.0	Rated speed rpm : 700 Aneroid pressure
Spreed		hPa : - Del. quantity
Tolerance cm3/1000 strokes	: 6.0	cm3/1000 strokes : 350.0 Tolerance cm3/1000 strokes : + 1.0
Check tolerance cm3/1000s.	: 10.0	Check tolerance - cm3/1000s. : + 4.0 - Spreed
Rated speed rpm	: 300	Tolerance cm3/1000 strokes : 6.0 Check tolerance
Del. quantity cm3/1000 strokes Tolerance	: 17.0	cm3/1000s. : 10.0
cm3/1000 strokes Check tolerance		CONTROL LEVER
cm3/1000s. Spreed Tolerance	: +- 6.0	control lever position degree : 88.0
cm3/1000 strokes Check tolerance		tolerance degree : + 4.0
cm3/1000S.	: 14.0	RATED SPEED rack travel mm: : 0.50
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	rack travel mm: : 0.50 Tolerance mm: : + 0.50 Rated speed rpm: : 900
GUIDE SLEEVE TRAN	/EL	- ASSEMBLY GOVERNOR SETTING
Rated speed rpm guide sleeve	: 758	Rated speed rpm : 750 rack travel mm : 13.80
travel mm Tolerance mm	: 3.24 : + 0.25	Rated speed rpm : 787 Tolerance 1/min : + 4 rack travel mm : 4.00
Rated speed rpm guide sleeve	: 490	rack travel mm : 4.00
travel mm Tolerance mm		Rated speed rpm : 751 rack travel mm : 13.80
Rated speed rpm guide sleeve		Rated speed rpm : 788 Tolerance 1/min : + 4
travel mm Tolerance mm	: 17.35 : + 0.25	rack travel mm : 4.00
Rated speed rpm guide sleeve		Rated speed rpm : 752 rack travel mm : 13.80
travel mm Tolerance mm		Rated speed rpm : 789 Tolerance 1/min : +- 4
Rated speed rpm guide sleeve		rack travel mm : 4.00
travel mm Tolerance mm	: 11.50 : ← 0.50	Rated speed rpm : 753

rack travel mm : 13.80

Rated speed rpm : 790
Tolerance 1/min : +- 4
rack travel mm : 4.00

Rated speed rpm : 754 rack travel mm : 13.80

Rated speed rpm : 791
Tolerance 1/min : 4
rack travel mm : 4.00

Rated speed rpm : 755 rack travel mm : 13.80

Rated speed rpm : 792
Tolerance 1/min : + 4
rack travel mm : 4.00

TORQUE CONTROL

Rated speed rpma : 700 rack travel mma : 14.80 Tolerance mma : + 0.05

LOW IDLE

Rated speed rpm : 300

Del. quantity

cm3/1000 strokes : 17.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : +- 6.0

Spreed

Tolerance

cm3/1000 strokes : 10.0

Check tolerance

cm3/1000s : 14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 02.11.93 : ISO 4113

Combination No. : 0 402 545 600

Injection pump

Pump designation : PE6P120A720RS7022 EP type number : 0 412 626 873

Sovernor

Governer design. : RQV200...1000PA539

: -14

Governer no.

: 0 421 814 011

Cust. part No. : 1343250

Customer-spec. information : SCANIA Customer

Motor

: DS11 76

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Vibration

damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. °C

40

Tolerance °C

: + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar :

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 104

Opening pressure

bar

: 251.5

Tolerance bar : +- 1.5

K06

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter :

x Length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : ← 1.0

Prestroke mm : 4.45 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.30

Check

tolerance *NW : +- 0.75

Start of delivery mark

Tolerance : **←** 0.10

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 250

Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: ← 0.10 : 17.0 : ← 2.0 : ← 5.0
(B) SETTING OF IN WITH GOVERNOR	
GUIDE SLEEVE POSI	TION
control lever position degree Rated speed rpm	: - 1 : 1050
Rack travel in mon Tolerance mon	a: 16.50 : +− 1.30
CONTROL LEVER	
control lever position degree tolerance degree	: 64.0 : +- 4.0
control lever position degree tolerance degree	: 116.0 : + 4.0
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 9.90 : 1045 : ← 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1130 : +- 15
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : +- 0.50 : 1250

control lever position degree tolerance degree	: 67.0 : + 4.0
control lever position degree tolerance degree	: 23.0 : ← 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 150
CRT mmm min.	: > 6.20
Testing:	
Rated speed rom rack travel mma Tolerance mma	: 250 : 4.70 : +- 0.10
rack travel mm Rated speed rpm Tolerance 1/min	
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 10.95 : +- 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 10.95 : + 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 10.10 : + 0.20
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 340 : 10.30 : ← 0.15
_	

Pressure hPa : 390 rack travel mm : 10.65

LOW IDLE

Tolerance mm : ← 0.05 FUEL DELIVERY CHARACTERISTICS Aneroid pressure : 1500 hPa Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s.: **←** 6.0 Aneroid pressure hPa 500 Rated speed rpm : Del. quantity cm3/1000 strokes : 144.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance : +- 4.0 cm3/1000s.STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 10.10 folerance mm : + 0.20 Del. quantity cm3/1000 strokes : 160.0 Tolerance cm3/1000 strokes : \leftarrow 20.0 Check tolerance : **←** 24.0 cm3/1000s. LOW IDLE 250 Rated speed rpm : Rack travel in mm: 4.70 : +- 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 17.0

Check tolerance cm3/1000s. : 8.0

End of test specification sheet

K08

Tolerance

cm3/1000s. Spreed Tolerance

Check tolerance

cm3/1000 strokes : + 2.0

cm3/1000 strokes : 4.0

: +- 5.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 11.11.93 Edition : ISO 4113 Test oil

Combination No. : 0 402 646 607

Injection pump

Pump designation : PE6P130A720RS7270 EP type number : 0 412 636 821

Governor

6overner design. : RQV300...950PA946-4

Governer no. : 0 421 814 026

Cust. part No. :

Customer-spec. information Customer : IVECO-UNIC

Motor : 8210.42P.032

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : **←** 1.5

Test lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : ∠26.0 Tolerance bar : ← 1.0

Prestroke mm : +-5.05 : **←** 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm : 14.00 Tolerance mm : +- 0.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : ← 0.30

Check

tolerance *NW : ← 0.75

BASIC SETTING

Rated speed rpm : 950

Rack travel in mm: -11.35

Tolerance mm : \leftarrow 0.05 Del. quantity

cm3/1000 strokes : 212.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 4.0	Check tolerance cm3/1000s. : 8.0
Spreed	
Tolerance cm3/1000 strokes : 5.0	CONTROL LEVER
Check tolerance cm3/1000s. : 8.0	position degree : 121.0 tolerance degree : + 4.0
Rated speed rpm : 275	RATED SPEED rack travel mm : 10.30 Rated speed rpm : 995 Tolerance 1/min : +- 5
Rack travel in mm: 4.70 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 22.0	rack travel mms : 4.00 Rated speed rpm : 1060 Tolerance 1/min : +- 15
Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1200
Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance	
cm3/1000s. : 12.0	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 77.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring Rated speed rpm : 100
control lever position degree : - 1 Rated speed rpm : 1060	CRT mm min. : > 6.90 Testing:
Rack travel in mm: 10.30 Tolerance mm: + 1.30	Rated speed rpm : 275 rack travel mm : 4.70 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 338
Rated speed rpm : 950 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 212.0	TORQUE CONTROL Rated speed rpm : 950 rack travel mm : -11.35 Tolerance mm : + 0.05
Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed	Rated speed rpm : 550 rack travel mm : 11.40 Tolerance mm : + 0.10
Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 500 rack travel mm : 8.00

K10

Tolerance ma	: ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 550 : 1000 : 11.35 : ← 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 550 : - 10.40 : + 0.10
MEASUREMENT	
Rated speed rpm	: 550
Pressure hPa rack travel mm Tolerance mm	: 260 : 10.70 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 300 : 11.05 : ← 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1000 : 550 : 216.0
cm3/1000 strokes Check tolerance cm3/1000s.	: ← 3.0 : ← 6.0
Aneroid pressure hPa Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: - : 500 : 8.00 : + 0.10 : 125.0
Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: + 5.0 : + 8.0

Tolerance				_	
cm3/1000 strokes Check tolerance	:		10.0)	
m3/1000s.	:		14.0	כ	
neroid pressure					
nPa Rated speed rpm	:		550		
Del. quantity	•			_	
cm3/1000 strokes Tolerance	:		185.0	J	
cm3/1000 strokes	: -	-	1.0)	
Check tolerance cm3/1000s.	: -	-	4.()	
STARTING FUEL DEL ESS test: With a rack must reach control lever se	24 V sta	sort	posi.		
ESS test: With a rack must reach control lever so	24 V sta	sort	posi.		
ESS test: With a rack must reach control lever so Rated speed rom Del. quantity	24 V star ettir	sort	posi:	tion	
ESS test: With a rack must reach control lever so Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	24 V star ettir	sc rt ng:	100 150.	tion D	
rack must reach	24 V star ettir	sc rt ng:	100 150.	tion D	
ESS test: With a rack must reach control lever so Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	24 V star ettir	sc rt ng:	100 150.	tion O	
ESS test: With a rack must reach control lever so Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	24 V star ettir	sc rt ng:	100 150.0	tion O	
ESS test: With a rack must reach control lever so Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	24 V star ettir	sort ng	100 150.0 15.0	tion O	

LOW IDLE					
Rated speed rpm	:		275		
Rack travel in mm Tolerance mm Del. quantity		+-	4.70 0.10		
cm3/1000 strokes	•		22.0		
Tolerance cm3/1000 strokes Check tolerance	:	+	3.0		
cm3/1000S. Spreed	:	+	6.0		
Tolerance cm3/1000 strokes	:		8.0		
Check tolerance cm3/1000s.	:		12.0		
					

Note remarks

Refer to Service Info for test and adjustment instructions.

See microcard(s) W400/...

Edition : 05.05.97 Test oil : ISO 4113

Combination No. : 0 402 646 608

Injection pump

Pump designation: PE6P12OA72ORS7188

: -101

EP type number : 0 412 626 926

Governor

Governer design. : RQ200/950PA745-3 Governer no. : 0 421 801 579

Cust. part l'lo. : 1544920

Customer—spec. information Customer : SCANIA

Motor : DSC 11 71

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Vibration

damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 235 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x tength mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm: +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

		+ Rated speed rpm : 1045
		+ guide sleeve
BASIC SETTING		travel mm : 5.50
		† Tolerance mm : +- 0.10
Rated speed rpm	: 700	+
		+ Rated speed rpm : 1360
		+ guide sleeve
Rack travel in mm	: 10.75	+ travel mm : 11.50
Tolerance mm	: ← 0.05	+ Tolerance mm : + 0.50
Occupance man	. 1- 0.05	T Total de la
		T
		CHARE OF THE DOCKTION
	252	+ GUIDE SLEEVE POSITION
Rated speed rpm	: 250	†
Rack travel in mm		+ control lever
Tolerance ma	: ← 0.10	+ position degree : 104
el. quantity	•	Rated speed rpm : 600
m3/1000 strokes	: 16.0	1
rolerance		Rack travel in mm: 16.50
m3/1000 strokes	30	Tolerance mm : + 1.30
	3.0	T Toterance min : T 1.50
Check tolerance		t
cm3/1000s.	: +- 6.0	+
Spreed		+
Tolerance		+ CONTROL LEVER
m3/1000 strokes	: 4.0	1
Check tolerance		- control lever
	: 8.0	
:m3/100 0 S.	. 0.0	+ position degree : 42.0
		tolerance degree : +- 4.0
		+
(B) SETTING OF INL	JECTION PUMP	+ control lever
WITH GOVERNOR		+ position degree : 96.0
		tolerance degree : + 4.0
GUIDE SLEEVE TRAVE	21	T RATED SPEED
POTRE SPEERE !KWAE		rack travel mm : 9.70
Madaal	. 4004	
kated speed rpm	: 1000	Rated speed rpm : 1050
guide sleeve		+ Tolerance 1/min : + 5
travel mm	: 4.90	+ Check
Tolerance mm		+ speed 1/min : + 10
		+
Rated speed rpm	: 250	rack travel mm : 4.00
		Rated speed rpm : 1135
guide sleeve	. 4.14	
ravel mm	: 1.41	Ob a al.
ravel mm	÷ 0.20	+ Check
travel mm Tolerance mm	: ← 0.20	+ Check + speed 1/min : + 20
travel mm Tolerance mm		
ravel mm Tolerance mm Rated speed rpm	: ← 0.20	speed 1/min : + 20
ravel mm Tolerance mm Rated speed rpm Quide sleeve	: ← 0.20 : 930	speed 1/min : + 20 rack travel mm : 0.50
ravel mm Tolerance mm Tated speed rpm Tuide sleeve Travel mm	: ← 0.20 : 930 : 4.50	rack travel mm : 0.50 Tolerance mm : + 0.50
ravel mm Tolerance mm Rated speed rpm guide sleeve ravel mm	: ← 0.20 : 930	speed 1/min : + 20 rack travel mm : 0.50
ravel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: ← 0.20 : 930 : 4.50 : ← 0.10	rack travel mm : 0.50 Tolerance mm : + 0.50
ravel mm Tolerance mm Rated speed rpm guide sleeve cravel mm Tolerance mm	: ← 0.20 : 930 : 4.50	rack travel mm : 0.50 Tolerance mm : + 0.50
ravel mm Tolerance mm Rated speed rpm Guide sleeve Fravel mm Tolerance mm Rated speed rpm	: ← 0.20 : 930 : 4.50 : ← 0.10	rack travel mm : 0.50 Tolerance mm : + 0.50
ravel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: ← 0.20 : 930 : 4.50 : ← 0.10	rack travel mm : 0.50 Tolerance mm : + 0.50
ravel mm rolerance mm Rated speed rpm guide sleeve travel mm rolerance mm Rated speed rpm guide sleeve travel mm	: ← 0.20 : 930 : 4.50 : ← 0.10 : 355 : 2.97	speed 1/min : + 20 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1250
ravel mm Folerance mm Rated speed rpm guide sleeve travel mm Folerance mm Rated speed rpm guide sleeve travel mm	: ← 0.20 : 930 : 4.50 : ← 0.10 : 355	rack travel mm : 0.50 Tolerance mm : + 0.50
travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: ← 0.20 : 930 : 4.50 : ← 0.10 : 355 : 2.97 : ← 0.10	speed 1/min : + 20 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1250
travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: ← 0.20 : 930 : 4.50 : ← 0.10 : 355 : 2.97 : ← 0.10	speed 1/min : + 20 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1250 LOW IDLE
travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: ← 0.20 : 930 : 4.50 : ← 0.10 : 355 : 2.97 : ← 0.10 : 520	speed 1/min : + 20 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1250 LOW IDLE control lever
ravel mm Folerance mm Rated speed rpm guide sleeve travel mm Folerance mm Rated speed rpm guide sleeve travel mm Folerance mm	: ← 0.20 : 930 : 4.50 : ← 0.10 : 355 : 2.97 : ← 0.10 : 520 : 4.50	speed 1/min : + 20 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1250 LOW IDLE control lever position degree : 62.0
ravel mm Tolerance mm Rated speed rpm puide sleeve ravel mm Tolerance mm Rated speed rpm puide sleeve ravel mm Tolerance mm Tolerance mm Tolerance mm	: ← 0.20 : 930 : 4.50 : ← 0.10 : 355 : 2.97 : ← 0.10 : 520	speed 1/min : + 20 rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1250 LOW IDLE control lever

control lever

position degree : 8.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 150

CRT mm min. :> 6.00

Testing:

Rated speed rpm : 250 rack travel mm : 4.70 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 340
Tolerance 1/min : + 20

TORQUE CONTROL

Rated speed rpm : 700 rack travel mm : 10.75 Tolerance mm : + 0.05

Rated speed rpm : 950 rack travel mm : 10.75 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 10.75
Tolerance mm : +- 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 10.75
Tolerance mm : + 0.05

MEASUREMENT

Rated speed rpm : 500

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 950

Del. quantity

cm3/1000 strokes : 158.0

Tolerance

cm3/1000 strokes : \leftarrow 4.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 10.75 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 170.0

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance

cm3/1000s. : + 24.0

FOM IDEE

Rated speed rpm : 250

Rack travel in mm: 4.70 Tolerance mm: + 0.10

Del. quantity

cm3/1000 strokes : 16.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : +- 6.0

Spreed

Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.10.93 Test oil : ISO 4113

Combination No. : 0 402 646 629

Injection pump

Pump designation : PE6P120A320LS7278 EP type number : 0 412 626 880

Governor

Governer design: : RQV325...1000PA1058

: -2

Governer no. : 0 421 814 061

Cust. part No. :

Customer—spec. information Customer : LIAZ Motor : M636S Power KW : 170.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Overflow quantity

min. L/h : 120 Tolerance L/h : + 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.00 Tolerance mm : + 0.05 Check

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Del. quantity cm3/1000 strokes : 184.0

Tolerance	+ 1.0	Rated speed rpm : 1270
	+	guide sleeve
Check tolerance cm3/1000s. :	← 4.0	travel mm : 11.50 Tolerance mm : +- 0.50
Spreed		GUIDE SLEEVE POSITION
Tolerance cm3/1000 strokes :	5.0	control lever
Check tolerance cm3/1000s. :	9.0	position degree : - 1 Rated speed rpm : 1135
		Rack travel in mm : 9.70 Tolerance mm : + 1.30
Rated speed rpm : Del. quantity	+	
cm3/1000 strokes :	22.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : Check tolerance	+ 3.0	Rated speed rpm : 1000 Aneroid pressure
	+ 6.0	hPa : - Del. quantity
Tolerance cm3/1000 strokes :	8.0	cm3/1000 strokes : 184.0 Tolerance
Check tolerance cm3/1000s.	+	cm3/1000 strokes : +- 1.0 Check tolerance
C	1	cm3/1000s. : + 4.0 Spreed
(B) SETTING OF INJE	CTION PUMP	Tolerance
WITH GOVERNOR	1	cm3/1000 strokes : 5.0 Check tolerance
	I	cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	. ‡	
Rated speed rpm : guide sleeve	1056	CONTROL LEVER
travel mm :	8.66	
Tolerance mm :	+ 0.15	control lever position degree : 64.0
Rated speed rpm : guide sleeve	325	tolerance degree : 4.0
travel mm :	1.55	control lever
Tolerance mm :	+ 0.20	position degree : 117.0 tolerance degree : +- 4.0
	764	DATE: 0055
guide sleeve	F 77	RATED SPEED
travel mm :	5.77 + 0.25	rack travel mm : 9.65 Rated speed rpm : 1045
	+	Rated speed rpm : 1045 Tolerance 1/min : +- 5
Rated speed rpm :		
	+ 404	4.00
guide steeve	+	rack travel mm : 4.00
guide sleeve travel mm :	2.41	Rated speed rpm : 1125
guide sleeve travel mm : Tolerance mm :	2.41	Rated speed rpm : 1125 Tolerance 1/min : + 15
guide sleeve travel mm : Tolerance mm : Rated speed rpm :	2.41	Rated speed rpm : 1125 Tolerance 1/min : + 15 rack travel mm : 0.50
guide sleeve travel mm : Tolerance mm :	2.41	Rated speed rpm : 1125 Tolerance 1/min : + 15

LOW IDLE

control lever

position degree : 65.0 tolerance degree : + 4.0

control lever

position degree : 9.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 225

CRT mm min. : > 6.10

Testing:

Rated speed rpm : 350

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 10.65
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 8.20
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 365
rack travel mm : 9.05
Tolerance mm : + 0.20

Pressure hPa : 590
rack travel man : 10.25
Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 143.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 325.0

Tolerance

cm3/1000 strokes : +- 20.0

Check tolerance

cm3/1000s. : +- 24.0

LOW IDLE

Rated speed rpm : 325

Del. quantity

cm3/1000 strokes : 22.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 13.10.93 Test oil : 180 4113

Combination No. : 0 402 646 631

Injection pump

Pump designation : PE6P12OA72ORS7307 EP type number : 0 412 626 905

Governor

Governer design. : RQ300/1100PA1095 Governer no. : 0 421 801 693

Cust. part No. : 615.60.08.0279

Customer-spec. information

Customer : SNF

Motor : WD615.48/49

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 180
Tolerance L/h : + 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.35 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : - 0.30

Check

tolerance *NW : + 0.75

Start of delivery blocking

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 12.65
Tolerance mm : + 0.05

Del. quantity +	Tolerance mm : + 0.10
cm3/1000 strokes : 229.0	
Tolerance	Rated speed rpm : 500 guide sleeve
cm3/1000 strokes : + 1.0	travel mm : 6.00
Charles and the same of the sa	Tolerance mm : + 0.10
Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 1280
t	guide sleeve
Spreed	travel mm : 11.50 Tolerance mm : + 0.50
Tolerance	
cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
Check tolerance	GOIDE GEEEVE 1 GOITTON
cm3/1000s. : 9.0	control lever
	position degree : 109
Description of the State of the	Rated speed rpm : 600
Rated speed rpm : 300	Rack travel in mm : 20.00
Rack travel in mm: 7.20	Tolerance mm : + 0.80
Tolerance mm : + 0.10 + Del. quantity +	
cm3/1000 strokes : 21.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance + 3.0 + 3.0	Rated speed rpm : 1100
Check tolerance	Aneroid pressure
cm3/1000s. : + 6.0	hPa : - Del. quantity
Spreed +	cm3/1000 strokes : 229.0
cm3/1000 strokes : 8.0	Tolerance cm3/1000 strokes : +- 1.0
Check tolerance + cm3/1000s. : 12.0 +	Check tolerance
+	cm3/1000s. : + 4.0
(B) SEITING OF INJECTION PUMP	Spreed Tolerance
WITH GOVERNOR	cm3/1000 strokes : 5.0
	Check tolerance : 9.0
GUIDE SLEEVE TRAVEL	
Rated speed rpm : 1150	
guide sleeve	CONTROL LEVER
travel mm : 6.37 + 0.10 +	control lever
Tolerance mm : + 0.10	position degree : 94.0
Rated speed rpm : 300	tolerance degree : +- 4.0
guide sleeve + travel mm : 1.75 +	RATED SPEED
Tolerance mma : + 0.10	rack travel mm : 11.60
Rated speed rpm : 1100 +	Rated speed rpm : 1145 Tolerance 1/min : +- 8
guide steeve	
travel mm : 6.00	rack travel mm : 4.00
Tolerance mm : + 0.10	Rated speed rpm : 1200 Tolerance 1/min : +- 15
Rated speed rpm : 426	
guide sleeve + travel mm : 5.04 +	rack travel mm : 0.70 Tolerance mm : +- 0.70
travelora : J.U4 T	TOCE OF THE STATE

Rated speed rpm : 1300	rack travel mm : 12.00 Tolerance mm : + 0.10 Pressure hPa : 450
LOW IDLE	rack travel mm : 11.00 Tolerance mm : + 0.05
control lever position degree : 75.0 tolerance degree : + 4.0	FUEL DELIVERY CHARACTERISTICS
Setting point w/out bumper spring	Aneroid pressure
Rated speed rpm : 200	hPa : - Rated speed rpm : 650
CRT man min. :> 9.40	Del. quantity cm3/1000 strokes : 247.0
Testing:	Tolerance cm3/1000 strokes : + 3.0
Rated speed rpm : 300 + rack travel mm : 7.20 + Tolerance mm : + 0.10 +	Check tolerance cm3/1000s. \div 6.0
+	Aneroid pressure
rack travel mm : 2.00 + Rated speed rpm : 415 + 30	Rated speed ripm : 500
Tolerance 1/min : + 20	Del. quantity cm3/1000 strokes : 158.0 Tolerance
TORQUE CONTROL Rated speed rpm : 1100	cm3/1000 strokes : +- 1.0 Check tolerance
rack travel mm : 12.65 Tolerance mm : + 0.05	cm3/10COS. : +- 4.0
Rated speed rpm : 650 rack travel mm : 12.65 rolerance mm : + 0.05	STARTING FUEL DELIVERY
Total a loc last.	Rated speed rpm : 100 rack travel mm : 10.60
ANEROID/ALTITUDE COMPENSATOR TEST	Tolerance mm : +- 0.10 Del. quantity
	cm3/1000 strokes : 105.0 Tolerance
SETTING	cm3/1000 strokes : +- 10.0 Check tolerance
Rated speed rpm : 500 + Pressure hPa : 1000 +	cm3/1000s. : + 14.0
rack travel mm : 12.65 Tolerance mm : + 0.05	
Rated speed rpm : 500	LOW IDLE
Pressure hPa : - + rack travel mm : 10.60 + -	Rated speed rpm : 300
Tolerance man : + 0.10	Rack travel in mm : 7.20 Tolerance mm : +- 0.10
MEASUREMENT 500	Del. quantity
Rated speed rpm : 500	Tolerance
Pressure hPa : 725 +	cm3/1000 strokes : \leftarrow 3.0

K21

Check tolerance cm3/1000s. : + 6.0

Spreed Tolerance

8.0 cm3/1000 strokes :

Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 20,06,95 Edition : ISO 4113 Test oil

Combination No. : 0 402 646 634

Injection pump

Pump designation : PE6P120A720RS7188 .

: -10

EP type number : 0 412 626 924

60vernor

6overner design. : RQ200...950PA745-5

: 0 421 801 695 Governer no.

Cust. part No. : 1356404

Customer-spec. information : SCANIA Customer : DSC 11 73 Motor

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Vibration damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. °C Tolerance *C

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 6.1

Test nozzle holde

: 1 688 901 104 assembly

Opening pressure

251.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : + 1.0

4,45 Prestroke mm : + 0.05 Tolerance mm Check tolerance mm : +- 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-5-3-6-2-Firing order : 4

Phasing : 0-60-120-180-240

: -300 : **←** 0.50

Tolerance Check

tolerance *NW : ← 0.75

BASIC SETTING

Rated speed rpm : 250

Rack travel in mm: 4.70 : + 0.10 Tolerance mm Del. quantity

cm3/1000 strokes : 16.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance +	
cn3/1000s. : + 6.0	
Spreed + Tolerance +	CONTROL LEVER
ca3/1000 strokes : 4.0	CONTINUE ELIPER
Check tolerance	control lever
cm3/1000s. : 8.0	position degree : 43.0
†	tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR	position degree : 97.0
+	tolerance degree : + 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED rack travel mm : 10.20
Rated speed rpm : 1006	Rated speed rpm : 995
guide steeve	Tolerance 1/min : + 5
travel mm : 4.90	Check
Tolerance mm : + 0.15	speed $1/\min$: \leftarrow 10
Rated speed rpm : 250	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1125
travel mm : 1.41	Tolerance 1/min : +- 15
Tolerance mm : + 0.20 +	Check
Rated speed rom : 930	speed 1/min : + 20
Rated speed rpm : 930 + guide sleeve +	rack travel mm: : 0.50
travel mm : 4.50	Tolerance mm : + 0.50
Tolerance ma : + 0.10	Rated speed rpm : 1200
2 to decree 255	
Rated speed rpm : 355 guide steeve +	
travel mm : 2.97	
Tolerance mm : + 0.10	LOW IDLE
+	
Rated speed rpm : 520	androl lover
guide sieave + travel mm : 4.50 +	control lever position degree : 65.0
Tolerance mm : + 0.10	tolerance degree : + 4.0
+	-
Rated speed rpm : 1045	control lever
guide sleeve travel mm : 5.50	position degree : 11.0 tolerance degree : + 4.0
Tolerance mm : + 0.10	totelance degree 4.0
+	Setting point w/out bumper spring
Rated speed rpm : 1360 +	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
guide sleeve + travel mm : 11.50 +	Rated speed rpm : 150
travel mm : 11.50 + Tolerance mm : + 0.50 +	CRT mm min. :> 6.00
roter ance mm	CAT THE TELLIFIC
	Testing:
GUIDE SLEEVE POSITION +	Dated aread man . 250
Ī	Rated speed rpm : 250 rack travel mm : 4.70
control lever	Tolerance mm : + 0.10
position degree : 109	
Rated speed rpm : 500	rack travel mm : 2.00
+ 100 mm = 200 mm	Rated speed rpm : 340
Rack travel in mm: 20.00 + Tolerance mm: + 0.80 +	Tolerance 1/min : +- 30
TOTEL SELECTION TOTAL TO	

TORQUE CONTROL

Rated speed rpm : 950 rack travel mm : 11.25 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 12.25
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 10.40
Tolerance mm : +- 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 210 rack travel mas : 10.60 Tolerance mm : + 0.15

Pressure hPa : 270
rack travel mm : 11.05
Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 950

Del. quantity

cm3/1000 strokes : 179.0

Tolerance

cm3/1000 strokes : + 4.0

Check tolerance

cm3/1000s. : + 6.0

Aneroid pressure

hPa : Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 153.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 10.40 Tolerance mm : + 0.20

Del. quantity

cm3/1000 strokes : 165.0

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance

cm3/1000s. : +- 24.0

LOW IDLE

Rated speed rpm : 250

Rack travel in mm : 4.70 : +- 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 16.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 13.10.93 Edition Test oil : 150 4113

Combination No. : 0 402 646 635

Injection bump

Pump designation: PE6P120A720RS7307 EP type number : 0 412 626 905

Governor

Governer design. : RQV300...1100PA1100

Governer no. : 0 421 814 074

Cust. part No. : 615.60.08.0280

Customer-spec. information

Customer : SNF

: WD615.48/49 Motor

Power KW : 265.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity
min. L/h : 180
Tolerance L/h : \(\triangle 20.0 \)

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.35
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : ← 0.30

Check

: → 0.75 tolerance "NW

Start of delivery blocking

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.65 Tolerance mm : ← 0.05

Del. quantity

cm3/1000 strokes : 229.0

Tolerance	+ Spreed
cm3/1000 strokes : + 1.0	+ Tolerance
	+ cm3/1000 strokes : 5.0
Check tolerance	Check tolerance
$cm3/1000s.$: \leftarrow 4.0	+ cm3/1000s. : 9.0
Spreed	I
Spi eeu	
Tolerance	I CONTROL LEVER
cm3/1000 strokes : 5.0	T CONTINUE ELVEIN
CAEDY (DOD) SCHOKES . J.D	T control lever
et al. Astonome	
Check tolerance	+ position degree : 119.0
cm3/1000s. : 9.0	tolerance degree : + 4.0
	†
	+ RATED SPEED
	rack travel mm : 11.60
Rated speed rpm : 300	+ Rated speed rpm : 1145
	+ Tolerance 1/min : + 5
Rack travel in mm: 7.20	+
Tolerance mm : + 0.10	rack travel mm : 4.00
Del. quantity	Rated speed rpm : 1265
cm3/1000 strokes : 21.0	Tolerance 1/min : + 15
Tolerance	1
cm3/1000 strokes : + 3.0	Track travel mm : 0.70
Check tolerance	Tolerance mm : + 0.70
	Rated speed rpm : 1350
Spreed	†
Tolerance	†
cm3/1000 strokes : 8.0	+
Check tolerance	+
cm3/1000s. : 12.0	+ LOW IDLE
	+
	+
(B) SETTING OF INJECTION PUMP	+ control lever
WITH GOVERNOR	position degree : 87.0
	tolerance degree : + 4.0
	Setting point w/out bumper spring
GUIDE SLEEVE POSITION	
GOING OFFICE COTITOIS	Rated speed rpm : 200
	I nated speed (pill . 200
control layer	T CRT mm min. :> 9.40
control lever	TRI MIND IN 1111.
position degree : - 1	Touting
Rated speed rpm : 1270	† Testing:
	+
Rack travel in mm : 11.60	Rated speed rpm : 300
Tolerance mm : + 1.30	+ rack travel mm : 7.20
	rack travel mm : 7.20 Tolerance mm : + 0.10
	+
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 380
	+
Rated speed rpm : 1100	
Aneroid pressure	TORQUE CONTROL
hPa : -	Rated speed rpm : 1100
	rack travel mm : 12.65
Del. quantity	+ Tolerance mm : + 0.05
cm3/1000 strokes : 229.0	Tolerance mm : + 0.05
Tolerance	† Date of annual construction (CD)
cm3/1000 strokes : + 1.0	+ Rated speed rpm : 650
Check tolerance	rack travel mm : 12.65
$cm3/1000s.$: \leftarrow 4.0	Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1000
rack travel mm : 12.65
Tolerance mm : + 0.05

Rated speed rpm : 500

Pressure hPa : rack travel mm : 10.60

Tolerance mm : +- 0.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 725
rack travel mm : 12.00
Tolerance mm : + 0.10

Pressure hPa : 450 rack travel mm : 11.00 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa :

hPa : -Rated speed rpm : 650 Del. quantity

cm3/1000 strokes : 247.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : + 6.0

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes : 158.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

 $c_{10}3/1000$ S. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 10.70
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 105.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance

: +- 14.0

LOW IDLE

cm3/1000s.

Rated speed rpm : 300

Rack travel in mm: 7.20
Tolerance mm: + 0.10
Del. quantity

cm3/1000 strokes : 21.0

Tolerance

cm3/1000 strokes : + 3.0 Check tolerance

cm3/1000s. : +- 6.0 Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 06.10.93 Test oil : ISO 4113

Combination No. : 0 402 646 636

Injection pump

Pump designation : PE6P12OA32OLS7278 EP type number : 0 412 626 880

Governor

Governer design. : RQV325...1000PA1058

: -3

Governer no. : 0 421 814 072

Cust. part No. :

Customer—spec. information Customer : LIAZ Motor : ML637S Power KW : 190.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 55 989

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.10 Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance °NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 325

Rack travel in mm : 5.30 Tolerance mm : + 0.30

Del. quantity

cm3/1000 strokes : 20.0

L01

Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Spreed Tolerance	: ← 3.0 : ← 6.0	Rack travel in mm : 12.30 Tolerance mm : + 1.30
cm3/1000 strokes	: 8.0	CONTROL LEVER
cm3/1000s.	: 12.0	control lever position degree : 66.0 tolerance degree : + 4.0
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	control lever position degree : 120.0 tolerance degree : + 4.0
GUIDE SLEEVE TRAV	/EL .	+ RATED SPEED
Rated speed rom guide sleeve travel mm	: 1057 : 8.68	rack travel mm : 12.40 Rated speed rpm : 1045 Tolerance 1/min : + 5
Tolerance mm	: + 0.15	+
Rated speed rpm guide steeve		rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : +- 15
travel mm Tolerance mm	: 1.55 : + 0.20	rack travel mm : 0.50 Tolerance mm : + 0.50
Rated speed rpm guide sleeve travel mm	: 764 : 5.77	Rated speed rpm : 1250
Tolerance mm	: ← 0.25	
Rated speed rpm guide sleeve	: 354	LOW IDLE
travel mm Tolerance mm	: 1.90 : + 0.25	control lever position degree : 65.0
Rated speed rpm guide sleeve		tolerance degree : + 4.0
travel mm Tolerance mm	: 2.41 : ← 0.25	+ control lever + position degree : 11.0
Rated speed rpm	: 500	tolerance degree : +- 4.0
guide sleeve travel mm	: 3.35	Setting point w/out bumper spring
Tolerance mm	: + 0.25	Rated speed rpm : 225
Rated speed rpm guide sleeve	: 1270	CRT mm min. : > 6.70
travel mm Tolerance mm	: 11.50 : +- 0.50	Testing:
		Rated speed rpm : 325 rack travel mm : 5.30
GUIDE SLEEVE POS	ITION	rack travel mm : 5.30 Tolerance mm : +- 0.30
control lever position degree Rated speed rpm		rack travel mm : 2.00 Rated speed rpm : 495 Tolerance 1/min : +- 30

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 13.40
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 300 rack travel mm : 11.00 Tolerance mm : +- 0.10

Pressure hPa : 665 rack travel mm : 13.00 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 143.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 410.0

Tolerance

cm3/1000 strokes : + 20.0

Check tolerance

cm3/1000s. : +- 24.0

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 5.30 Tolerance mm : +- 0.30

Del. quantity

cm3/1000 strokes : 20.0

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 6.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 06,10,93 Edition : ISO 4113 Test oil

Contribution No. : 0 402 646 642

Injection pump

Pump designation : PE6P120A320LS7278 EP type number : 0 412 626 880

Governor

Governer design. : RQV325...1000PA1058

: -4

: 0 421 814 080 Governer no.

Cust. part No. :

Customer-spec. information Customer : LIAZ : ML636P Motor Power KW : 152.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

40 temp. °C : +- 2.0 Tolerance °C

: 1 417 413 025 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

208.5 Tolerance bar : **←** 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter : 3.0 600 x length man :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

5,35 Prestroke mm Tolerance mm : **←** 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

: **←** 0.30 Tolerance

Check

tolerance °NW : ← 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 325

Rack travel in mm: 4.00

Tolerance mm : +- 0.30

Del. quantity		+
cm3/1000 strokes	: 24.0	+
Tolerance		t
cm3/1000 strokes	: ← 3.0	+
Check tolerance		†
cm3/1000s.	: +- 6.0	1
Spreed Tolerance		1
cm3/1000 strokes	: 8.0	I
Check tolerance	. 0.0	\mathbf{I}
cm3/1000s.	: 12.0	1
		1
(D) 057771/2 05 Th	LIFESTALL BURNS	+
(B) SETTING OF IN	MECITON HOMB	1
WITH GOVERNOR		1
		.]
GUIDE SLEEVE TRAV	EL	1
Rated speed rpm	: 1045	1
guide sleeve		1
travel mm	: 8.53	+
Tolerance mm	: + 0.15	+
Rated speed rpm	: 325	Ì
guide sleeve	. 323	1
travel mm	: 1.55	1
Tolerance mm	: + 0.20	1
		4
Rated speed rpm	: 760	4
guide sleeve		+
travel mm	: 5.73	+
Tolerance mm	: + 0.25	+
	351	†
Rated speed rpm	: 354	1
guide sleeve travel mm	: 1.90	1
travel mm Tolerance mm	: + 0.25	1
roterance min	. +- 0.2	\mathbf{I}
Rated speed rpm	: 404	1
guide sleeve		1
travel mm	: 2.50	1
Tolerance mm	: +- 0.25	4
	400	+
Rated speed rpm	: 490	†
guide sleeve	. 7 35	†
travel mm	: 3.25	1
Tolerance mm	: ← 0.25	1
Rated speed rpm	: 1270	1
guide sleeve	· - · -	1
travel mm	: 11.50	+
	: +- 0.50	1
Tolerance mm	0.20	

CONTROL LEVER	
control lever	
position degree	: 61.0
tolerance degree	: +- 4.0
control lever	447.0
position degree tolerance degree	
RATED SPEED	
rack travel mm	: 10.60
Rated speed rpm Tolerance 1/min	: 1045 : +- 5
rack travel mm	: 4.00
Rated speed rpm	: 1135
	: +- 15
Tolerance 1/min	, 13
rack travel mm	: 0.50
rack travel mm Tolerance mm	
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : + 0.50
rack travel mm Tolerance mm Rated speed rpm LOW IDLE	: 0.50 : + 0.50
rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever position degree	: 0.50 : + 0.50 : 1250
rack travel mm Tolerance mm Rated speed rpm LOW IDLE	: 0.50 : + 0.50 : 1250
rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever position degree tolerance degree control lever	: 0.50 : + 0.50 : 1250 : 64.0 : + 4.0
rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever position degree tolerance degree	: 0.50 : + 0.50 : 1250 : 64.0 : + 4.0
rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever position degree tolerance degree control lever position degree tolerance degree tolerance degree	: 0.50 : + 0.50 : 1250 : 64.0 : + 4.0
rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever position degree tolerance degree control lever position degree tolerance degree tolerance degree	: 0.50 : + 0.50 : 1250 : 64.0 : + 4.0 : + 4.0 out bumper spring
rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever position degree tolerance degree tolerance degree tolerance degree tolerance degree tolerance degree	: 0.50 : + 0.50 : 1250 : 64.0 : + 4.0 : + 4.0 out bumper spring
rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever position degree tolerance degree control lever position degree tolerance degree tolerance degree	: 0.50 : + 0.50 : 1250 : 64.0 : + 4.0 : + 4.0 out bumper spring : 225
rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever position degree tolerance degree control lever position degree tolerance degree tolerance degree Control lever position degree tolerance degree CRT mm min.	: 0.50 : + 0.50 : 1250 : 64.0 : + 4.0 : + 4.0 out bumper spring : 225 : > 5.60 : 325

Rated speed rpm : 1125

control lever position degree : -1

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

500 Rated speed rpm : : 1500 Pressure hPa rack travel mm : 11.60 : + 0.05Tolerance nm

500 Rated speed rpm Pressure hPa : +- 0.20 Tolerance mm

MEASUREMENT

500 Rated speed rpm

380 Pressure hPa 9.95 rack travel mm : +- 0.20 To erance an

Pressure hPa : 580 rack travel mm 11.20 Tolerance mm : **←** 0.05

FUEL DELIVERY CHARACTERISTICS

Anaroid pressure

500 Rated speed rpm : Del. quantity

cm3/1000 strokes :

143.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

100 Rated speed rpm :

Del. quantity

330.0 cm3/1000 strokes :

Tolerance

cm3/1000 strokes : + 20.0

Check tolerance

cm3/1000S.: **←** 24.0

LOW IDLE

L06

Rated speed rpm : 325

Rack travel in mm : 4.00 : +-0.30 Tolerance mm

Del. quantity

cm3/1000 strokes : 24.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s.6.0 : +-Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 13.06.94 Test oil : ISO 4113

Combination No. : 0 402 646 645

Injection pump

Pump designation : PE6P12OA72ORS7330 . EP type number : 0 412 626 917

Governo:

Governer design. : RQV300...1200PA1143K

Governer no. : 0 421 815 412

Cust. part No. : 615.60.08.0210

Customer—spec. information Customer : SNF

Motor : WD612.32 Power KW : 169.0

TEST BENCH REQUIREMENTS

Inlet line : 4.7

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter: 8.0

x length mm : 600

3.0

x inside diameter:

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.3

Prestroke mm : 5.20
Tolerance mm : + 0.05

Check

tolerance mm: : + 0.10

Rack travel in mm : 15.00 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 12.50 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 178.0

Tolerance

cm3/1000 strokes : +- 1.0

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cm3/1000s.		†
	: ← 4.0	Rated speed rpm : 490 guide sleeve
Spreed		travel mm : 3.86
Talaman		† Tolerance ma : + 0.25
Tolerance cm3/1000 strokes	: 6.0	Rated speed rpm : 1490 guide sleeve
Check tolerance	**************************************	travel mm : 13.50
cm3/1000s.	: 9.0	+ Tolerance mm : + 0.50
		GUIDE SLEEVE POSITION
Rateci speed rpm	: 300	T
	4.00	†
Rack travel in ma Tolerance mam		+ control lever+ position degree : - 1
Del. quantity	. 4 0.10	Rated speed rpm : 1340
cm3/1000 strokes	: 16.0	1
Tolerance	7.0	Rack travel in mm: 11.20
cm3/1000 strokes Check tolerance		Tolerance mm : + 1.30
cm3/1000s.	: + 6.0	
Spreed		FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes		+ Rated speed rpm : 1200
Check tolerance		+ Aneroid pressure
cm3/1000s.		hPa : 1200
		+ Del. quantity
(B) SETTING OF I	NUFCTION PUMP	- cm3/1000 strokes : 178.0 - Tolerance
WITH GOVERNOR		+ cm3/1000 strokes : +- 1.0
MT ILL GOAEKIAOM		
WITH GOVERNOR		+ Check tolerance
	\\F!	Check tolerance : +- 4.0
GUIDE SLEEVE TRA	IVE!	+ Check tolerance
GUIDE SLEEVE TRA		Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0
GUIDE SLEEVE TRA Rated speed rpm guide sleeve	: 1255	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm	: 1255 : 10.44	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm	: 1255 : 10.44 : + 0.25	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 1255 : 10.44	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 1255 : 10.44 : + 0.25 : 300	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 1255 : 10.44 : + 0.25	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1255 : 10.44 : + 0.25 : 300 : 1.75 : + 0.25	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 1255 : 10.44 : + 0.25 : 300 : 1.75 : + 0.25	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1255 : 10.44 : + 0.25 : 300 : 1.75 : + 0.25	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 1255 : 10.44 : + 0.25 : 300 : 1.75 : + 0.25 : 843	Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 11.40
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	: 1255 : 10.44 : + 0.25 : 300 : 1.75 : + 0.25 : 843 : 6.59 : + 0.25	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.40 Rated speed rpm : 1245
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1255 : 10.44 : + 0.25 : 300 : 1.75 : + 0.25 : 843 : 6.59 : + 0.25	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.40
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1255 : 10.44 : ← 0.25 : 300 : 1.75 : ← 0.25 : 843 : 6.59 : ← 0.25 : 333 : 2.29	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.40 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1255 : 10.44 : ← 0.25 : 300 : 1.75 : ← 0.25 : 843 : 6.59 : ← 0.25 : 333	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.40 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1345
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm	: 1255 : 10.44 : ← 0.25 : 300 : 1.75 : ← 0.25 : 843 : 6.59 : ← 0.25 : 333 : 2.29 : ← 0.25	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.40 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00
GUIDE SLEEVE TRA Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1255 : 10.44 : ← 0.25 : 300 : 1.75 : ← 0.25 : 843 : 6.59 : ← 0.25 : 333 : ← 2.29 : ← 0.25 : 383	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.40 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1345 Tolerance 1/min : + 15 rack travel mm : 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 1255 : 10.44 : ← 0.25 : 300 : 1.75 : ← 0.25 : 843 : 6.59 : ← 0.25 : 333 : 2.29 : ← 0.25	Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 CONTROL LEVER control lever position degree : 120.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 11.40 Rated speed rpm : 1245 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1345 Tolerance 1/min : + 15

LOW IDLE

control lever

position degree : 73.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. :> 8.00

Testing:

Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10

Rated speed rpm : 300

TORQUE CONTROL

Rated speed rpm : 1200 rack travel mm : 12.50 Tolerance mm : + 0.05

Rated speed rpm : 1000 rack travel mm : 12.80 Tolerance mm : ÷ 0.10

Rated speed rpm : 800 rack travel mm : 12.25 Tolerance mm : + 0.10

Rated speed rpm : 650 rack travel mm : 11.50 Tolerance mm : + 0.10

Rated speed rpm : 500 rack travel mm : 11.50 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 1200
Pressure hPa : 1200
rack travel mm : 12.50
Tolerance mm : + 0.05

Rated speed rpm : 1200

Pressure hPa : rack travel mm : 9.90
Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 1200

Pressure hPa : 755
rack travel mm : 12.15
Tolerance mm : + 0.10

Pressure hPa : 355
rack travel mm : 10.20
Tolerance mm : + 0.05

Start interlock

Rated speed rpm : > 100 Rated speed rpm : < 230

Check

speed 1/min : > 80 Check speed 1/min : < 250

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure 1200 Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Ameroid pressure
hPa : 1200
Rated speed rpm : 800
rack travel mm : 12.25
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 192.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance

: +- 4.0

Spreed

cm3/1000s.

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Tolerance	: 8.0
Check tolerance cm3/1000s.	: 12.0
Aneroid pressure	: 1200
Rated speed rpm Del. quantity	: 650
cm3/1000 strokes	: 182.0
Tolerance	: + 3.0
Check tolerance cm3/1000s. Spreed	: + 6.0
Tolerance	: 8.0
Check tolerance cm3/1000S.	: 12.0
Aneroid pressure	
hPa Rated speed rpm	: 1200 : 500
Del. quantity cm3/1000 strokes	: 187.5
Tolerance cm3/1000 strokes	: ← 3.0
Check tolerance cm3/1000S. Spreed	: +- 6.0
Tolerance cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 12.0
Aneroid pressure	
hPa Rated speed rpm	500
Del. quantity cm3/1000 strokes	: 148.0
Tolerance cm3/1000 strokes	: + 3.0
Check tolerance cm3/1000s. Spreed	: ← 7.0
opreed Tolerance cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 12.0

Rated speed rpm : 100 rack travel mm : 13.50

Del. quantity cm3/1000 strokes Tolerance	:		160.0
cm3/1000 strokes Check tolerance	: 1	- -	15.0
cm3/1000s.	: 1	-	19.0

LOW IDLE			
Rated speed rpm	:		300
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	:	+-	6.00 0.10 16.0
Tolerance cm3/1000 strokes Check tolerance	-	+-	3.0
cm3/1000s. Spreed Tolerance	:	+	6.0
cm3/1000 strokes Check tolerance	:		8.0
cm3/1000s.	:		12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 13.06.94 Test oil : ISO 4113

Combination No. : 0 402 646 648

Injection pump

Pump designation : PE6P120A720RS7330 EP type number : 0 412 626 917

Governor

Governer design. : RQV300...1200PA1144K

Governer no. : 0 421 815 417

Cust. part No. : 612.60.08.0211

Customer—spec. information Customer : SNF

Motor : WD612.34 Power KW : 191.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.20
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 15.00 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 13.90 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 190.5

Tolerance cm3/1000 strokes : + 1.0

m3/1000 Strokes . 7- 1.0

Check tolerance		1
cm3/1000s.	: ← 4.0	Rated speed rpm : 480 guide sleeve
Spreed		travel mm : 3.23
opi ees		+ Tolerance mm : + 0.25
Tolerance		
cm3/1000 strokes	: 6.0	Rated speed rpm : 1530
		guide sleeve
Check tolerance		+ travel mm : 13.50
cm3/1000s.	: 9.0	Tolerance mm : +- 0.50
		+
		+ GUIDE SLEEVE POSITION
Rated speed rum	: 300	+
		†
Rack travel in m		+ control lever
Tolerance mm	: ← 0.10	position degree : - 1
Del. quantity	20.0	Rated speed rpm : 1340
cm3/1000 strokes	: 20.0	Book tonyal in me a 42 00
Tolerance cm3/1000 strokes	70	Rack travel in mm : 12.90 Tolerance mm : +- 1.30
Check tolerance	5.0	T TOTE PARTIE (IIII) 1.30
cm3/1000s.	: ← 6.0	
Spreed		FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance		TOCK BOND DELIVERY NY TOCK BOND OTON
cm3/1000 strokes	: 8.0	Rated speed rpm : 1200
Check tolerance		Aneroid pressure
cm3/1000s.	: 12.0	hPa : 1200
		Del. quantity
		- cm3/1000 strokes : 190.5
(B) SETTING OF IN	NJECTION PUMP	+ Tolerance
WITH GOVERNOR		+ cm3/1000 strokes : +- 1.0
		+ Check tolerance
		+ cm3/1000s. : + 4.0
GUIDE SLEEVE TRAN	VEL	+ Spreed
~	4077	Tolerance
Rated speed rpm	: 1255	cm3/1000 strokes : 6.0
guide steeve	0.05	Check tolerance
travel mm	: 9.85	cm3/1000s. : 9.0
Tolerance mm	: + 0.25	Ť
Rated speed rpm	: 300	I
guide sleeve	• 500	T CONTROL LEVER
travel mm	: 1.20	CONTINUE MEASURE
Tolerance mm	: + 0.25	- control lever
rocci anec ima		position degree : 119.0
Rated speed rpm	: 845	tolerance degree : + 4.0
guide steeve	_	+
travel mm	: 6.06	+ RATED SPEED
Tolerance mm	: - 0.25	+ rack travel mm : 12.90
		Rated speed rpm : 1245
Rated speed rpm	: 335	Tolerance 1/min : + 5
guide sleeve	4 70	†
travel mm	: 1.79	rack travel mm : 4.00
Tolerance mm	: ← 0.25	Rated speed rpm : 1365
D 1 - 1	. 705	Tolerance 1/min : +- 15
Rated speed rpm	: 385	T mark travel mm . 0.50
guide steeve	. 2.17	+ rack travel mm : 0.50 + Tolerance mm : + 0.50
travel mm	: 2.47	Tolerance mm : + 0.50 Rated speed rpm : 1450
Tolerance man	: ← 0.25	T varien shaen thin . 1470

LOW IDLE

control lever

position degree : 73.0 tolerance degree : \leftarrow 4.0

Setting point w/out bumper spring

Rated speed ripm : 200

CRT mm min. : > 8.10

Testing:

Rated speed rpm : 300 rack travel mm : 6.80 Tolerance mm : + 0.10

Rated speed rpm : 360

TORQUE CONTROL

Rated speed rpm : 1000 rack travel mm : 13.90 Tolerance mm : +- 0.10

Rated speed rpm: : 800 rack travel mm: 13.80 Tolerance mm: : + 0.10

Rated speed rpm : 650 rack travel mm : 13.00 Tolerance mm : + 0.10

Rated speed rpm : 500 rack travel mm : 12.70 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 1200
Pressure hPa : 1200
rack travel mm : 13.90
Tolerance mm : ← 0.05

Rated speed rpm : 1200

Pressure hPa : rack travel mma : 10.70
Tolerance mma : + 0.10

MEASUREMENT

Rated speed rpm : 1200

Pressure hPa : 965 rack travel mm : 13.50 Tolerance mm : + 0.10

Pressure hPa : 420 rack travel mm : 11.00 Tolerance mm : + 0.05

Start interlock

Rated speed rpm : > 100 Rated speed rpm : < 250

Check

speed 1/min : > 80

Check

speed 1/min : < 270

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure 1200 1000 Rated speed rpm : Del. quantity cm3/1000 strokes : 202.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000S. : +-6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Aneroid pressure
hPa : 1200
Rated speed rpm : 800
rack travel mm : 13.80
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 214.0
Tolerance
cm3/1000 strokes : + 3.0

Check tolerance cm3/1000s. : +- 6.0

Spreed

Tolerance		
cm3/1000 strokes	: 8.0	
Check tolerance cm3/1000s.	: 12.0	
CH3/ 10003.	. 12.0	
Aneroid pressure		
hPa	: 1200	
Rated speed rpm	: 650	
Del. quantity	20/ 0	
cm3/1000 strokes Tolerance	: 206.0	
cm3/1000 strokes	: ← 3.0	
Check tolerance		
cm3/1000s.	: ← 6.0	
Spreed		
Tolerance cm3/1000 strokes	: 8.0	
Check tolerance	. 0.0	
cm3/1000s.	: 12.0	
Aneroid pressure		
hPa	: 1200	
Rated speed rpm	: 500	
Del. quantity cm3/1000 strokes	: 204.0	
Tolerance	. 204.0	
cm3/1000 strokes	: ← 3.0	
Check tolerance		
cm3/1000s.	: ← 6.0	
Spreed Tolerance		
cm3/1000 strokes	: 8.0	
Check tolerance		
cm3/1000s.	: 12.0	
Aneroid pressure		
hPa Rated speed rpm	500	
Del. quantity		
cm3/1000 strokes	: 155.0	
Tolerance		
cm3/1000 strokes	: + 3.0	
Check tolerance cm3/1000s.	: +- 6.0	
Spreed		
Tolerance		
cm3/1000 strokes	: 8.0	
Check tolerance cm3/1000s.	: 12.0	
UM3/ 10003.	. 12.0	
CTADITAL FILE NE	TVEDY	
STARTING FUEL DEL	TACKI	

Del. quantity cm3/1000 strokes : 175.0 Tolerance cm3/1000 strokes : \leftarrow 15.0 Check tolerance cm3/1000s. : **←** 20.0

LOW IDLE Rated speed rpm : 300 Rack travel in mm : 6.80 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : **←** 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

End of test specification sheet

Rated speed rpm : 100 rack travel mm : 14.5

14.50

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 18.03.98 Test oil : ISO 4113

Combination No. : 0 402 646 673

Injection pump

Pump designation : PE6P12OA32ORS7412 EP type number : 0 412 626 953

Governor

Governer design. : RQV275...1000PA1300K

Governer no. : 0 421 815 527

Cust. part No. : 1315099

Customer—spec. information Customer : DAF Motor : XF 250 M Power KW : 250.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 150 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

. 4

Phasing : 0-60-120-180-240

: −300 : + 0.50

Tolerance Check

tolerance *NW : +- 0.75

Start of delivery mark

Tolerance : + 0.10

Check

tolerance *NW : \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 750

		1
Rack travel in mm Tolerance mm	: 12.00 : + 0.05	Rated speed rpm : 400 guide sleeve travel mm : 3.92
Del. quantity cm3/1000 strokes	: 289.0	Tolerance mm : + 0.25
		Rated speed rpm : 1310
Tolerance cm3/1000 strokes	: + 1.0	guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
Check tolerance cm3/1000s.	: + 4.0	GUIDE SLEEVE POSITION
Spreed		+
Tolerance cm3/1000 strokes	: 5.0	control lever position degree : - 1 Rated speed rpm : 1181
Check tolerance cm3/1000s.	: 9.0	Rack travel in mm : 10.00 Tolerance mm : + 2.00
Rated speed rpm	: 275	FULL LOAD DELIVERY AT FULL LOAD STO
Rack travel in mm		Rated speed rpm : 750
Tolerance mm	: + 0.10	+ Aneroid pressure
Del. quantity	. 17.0	hPa : 1500
cm3/1000 strokes Tolerance	: 17.0	+ Del. quantity + cm3/1000 strokes : 289.0
cm3/1000 strokes	: 	Tolerarice
Check tolerance	•	+ cm3/1000 strokes : +- 1.0
cm3/1000s.	: ← 6.0	+ Check tolerance
Spreed		+ cm3/1000s. : +- 4.0
Tolerance cm3/1000 strokes	: 8.0	+ Spreed + Tolerarice
Check tolerance	. 0.0	cm3/1000 strokes : 5.0
cm3/1000S.	: 12.0	+ Check tolerance
		+ cm3/1000s. : 9.0
(B) SETTING OF INL	JECTION PUMP	CONTROL LEVER
		T CONTROL LEVER
GUIDE SLEEVE TRAVE	EL	control lever
	4.000	position degree : 118.0
Rated speed rpm	: 1072	tolerance degree : +- 4.0
guide sleeve travel mm	: 10.16	T RATED SPEED
Tolerance mm	: +- 0.15	+ rack travel mm : 10.50
	-	Rated speed rpm : 1045
Rated speed rom	: 275	Tolerance 1/min : + 5
guide sleeve travel mm	: 2.04	+ Check + speed 1/min : +- 10
Tolerance man	: + 0.20	Speed 1/milli : 1 10
		rack travel mm : 4.00
Rated speed rpm	: 701	Rated speed rpm : 1140
guide sleeve	. 452	Tolerance 1/min : + 15
travel mm Tolerance mm	: 6.52 : + 0.25	+ Check + speed 1/min : +- 20
(いんさ) ないして (機能	. · · · · ·	1 Specia (7 metr)

rack travel mm	:	0.70
Tolerance an	: 4	─ 0.70
Rated speed rpm	:	1275

LOW IDLE

control lever		
position degree	:	70.0
talerance degree	• +-	4.0

Setting point w/out bumper spring

Rated	speed	rpm	:	175
-------	-------	-----	---	-----

CRT mm min. : > 6.50

Testing:

Rated speed rpm	:	275
rack travel ma	:	3.90
Tolerance mm	: +	- 0.10

Rated speed rpm : 310

TORQUE CONTROL		
Rated speed rpm	:	750
rack travel mm	:	12.00
Tolerance mm	: +	- 0.05

Rated speed m	m:	980
rack travel m		11.50
Tolerance mm	: •	← 0.10

Rated speed rpm	:	900
rack travel mm	:	11.70
Tolerance mm	: +	- 0.10

Rated speed rpm	:	700
rack travel mm	:	12.00
Tolerance mm	: +	- 0.10

Rated speed	rpm	:		600
rack travel	TE	:		11.40
Tolerance mm		:	+	0.10

Rated speed rpm	:	500
rack travel mm	:	10.90
Tolerance nm	: +	- 0.10

Rated speed rpm	:	1000
rack travel mm	:	11.50
Tolerance mm	:	+-0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	775
Pressure hPa	:	1500
rack travel mm	:	12.00
Tolerance mm	:	→ 0.10

Rated speed rpm	:	775
Pressure hPa	:	-
rack travel mm	:	8.30
Tolerance mm	: +	- 0.20

MEASUREMENT

Rated	speed	Lbu	:	775

Pressure hPa	:	460
rack travel mm	:	11.00
Tolerance mm	: +-	- 0.05

Pressure hPa : 250 rack travel mm : 9.30 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm	: 1500 : 980
Del. quantity cm3/1000 strokes Tolerance	: 250.0
cm3/1000 strokes	: + 2.0
Check tolerance cm3/1000S. Spreed	: +- 5.0
Tolerance cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0
rack travel mm Tolerance mm	: 11.70 : + 0.10

Aneroid pressure		
hPa	:	_
Rated speed rpm	:	600
Del. quantity		
cm3/1000 strokes	:	188.0

Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0

LOW IDLE

Rated speed rpm : 275

Rack travel in mm : 3.90
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 17.0
Tolerance
cm3/1000 strokes : + 3.0
Check tolerance
cm3/1000s. : + 6.0
Spreed
Tolerance

cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 19.04.96 : ISO 4113

Combination No. : 0 402 646 741

Injection pump

Pump designation : PE6P12OA320LS7872

EP type number : 0 412 626 912

Governor

Governer design. : RQ750PA1231 Governer no. : 0 421 801 791

Cust. part No. : 04222728KY0165-17

Customer-spec. information

: KHD Customer

: BF6M1015/C Motor

Power KW : 239.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar :

Tolerance bar : ← 0.1

Overflow quantity

min. L/h : 100 Tolerance L/h : +- 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : ← 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

: 4.05 Prestroke mm : +- 0.05 Tolerance mm

Check

: + 0.10 tolerance mm

Rack travel in mm: 10.50 Tolerance mm : → 1.50

: 1-6-3-5-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

: +- 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

700 Rated speed rpm :

		• • •	
	4	- guide sleeve	40.00
Rack travel in man		travel mm	: 12.00
Tolerance mm	: ← 0.05	- Tolerance mm	: ← 0.25
		 	
Del. quantity	-	- Rated speed rpm	: 930
cm3/1000 strokes	: 365.0	- guide sleeve	
		- travel mm	: 13.50
Tolerance	-	- Tolerance mm	: ← 0.50
cm3/1000 strokes	: ← 1.0		
Check tolerance	-	 FULL LOAD DELIVER 	RY AT FULL LOAD STOP
cm3/1000s.	: ← 4.0 -		
		Rated speed rpm	
Spreed		- Aneroid pressure	
	-	- hPa	Ф
Tolerance		- Del. quantity	
cm3/1000 strokes	: 5.0	cm3/1000 strokes	: 365.0
		Tolerance	
Check tolerance	•	cm3/1000 strokes	: + 1.0
cm3/1000s.	: 9.0	- Check tolerance	
		- cm3/1000s.	: +- 4.0
	-	- Spreed	
	-	- Tolerance	
Rated speed rpm	: 300	cm3/1000 strokes	
Del. quantity	-	- Check tolerance	
cm3/1000 strokes	: 20.0	- cm3/100 0 S.	: 9.0
Tolerance	-	-	
cm3/1000 strokes	: - 3.0	-	
Check tolerance	-		
cm3/1000s.	: +- 6.0	CONTROL LEVER	
Spreed	-	-	
Tolerance	•	- control lever	
cm3/1000 strokes	: 8.0	- position degree	
Check tolerance	•	tolerance degree	: ← 4.0
cm3/1000s.	: 12.0	-	
	•	RATED SPEED	
	-	t	2 - 2
(B) SETTING OF IN	JECTION PUMP -	rack travel mm	: 0.50
WITH GOVERNOR	•	Tolerance mm	
	•	Rated speed rpm	: 900
		1005151 V 001.50101	0====110
GUIDE SLEEVE TRAV	/EL -	ASSEMBLY GOVERNO	R SELLING
Do Arabay I are	- 74 <i>°</i>	Patrid amand and	. 750
Rated speed rpm		Rated speed rpm rack travel mm	: (DU . 12 ZO
guide sleeve	. / 37	rack travel mm	: 12.30
guide steeve travel mm Tolerance mm	4.65	Batad speed	. 790
rolerance mm	: + U.15	Rated speed rpm	: 780
Do to all amount com-		Tolerance 1/min rack travel mm	5 50
Rated speed rpm	: 610	rack travel mm	: 5.50
guide sleeve	. 0.70	mak tanyal m	. 0.50
travel mma Tolerance mma	: 0.72	rack travel mm	
ioterance mm	: ← U.⊘	Tolerance mm	. 0.00
D	. 000	Rated speed rpm	: 900
Rated speed rpm	: YUU -		
guide sleeve	44.00	Dahad anaad aa	. 754
travel mm Tolerance mm	: 14.89	Rated speed rpm rack travel mm	; (D) . 10.70
iolerance mm	: + U.25	rack travel mm	: 12.30
		Dobod once to	. 704
Rated speed rpm	: 862	Rated speed rpm	: (8)
	-	Tolerance 1/min	: +- 4

rack travel 🛲	: 5.50
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 900
Rated speed rpm	: 752
rack travel mm	: 12.30
Rated speed rpm	: 782
Tolerance 1/min	: ← 4
rack travel mm	: 5.50
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 900
Rated speed rpm	: 753
rack travel mm	: 12.30
Rated speed rpm	: 783
Tolerance 1/min	: ← 4
rack travel mm	: 5.50
rack travel mma	: 0.50
Tolerance mma	: \(\to \) 0.50
Rated speed rpm	: 900
Rated speed rpm	: 754
rack travel mm	: 12.30
Rated speed rpm	: 784
Tolerance 1/min	: ← 4
rack travel mm	: 5.50
rack travel mm	: 0.50
Tolerance mm	: \(\to 0.50
Rated speed rpm	: 900
Rated speed rpm	: 755
rack travel mm	: 12.30
Rated speed rpm	: 785
Tolerance 1/min	: ← 4
rack travel mm	: 5.50
rack travel mm	: 0.50
Tolerance mm	: ← 0.50
Rated speed rpm	: 900

TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.30 : + 0.05

Start interlock			
Rated speed rpm Rated speed rpm	: >	100 560	
Check speed 1/min Check	: >	80	
speed 1/min	: <	580	
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +-	100 20.25 0.75 200.0 20.0	
LOW IDLE			manya Minara Wilayaka kangka k
Rated speed rpm	:	300	

Rated speed rpm	:	300
Del. quantity cm3/1000 strokes Tolerance	:	20.0
cm3/1000 strokes Check tolerance	; +	- 3.0
cm3/1000S.	: +	- 6.0
Tolerance cm3/1000 strokes	:	8.0
Check tolerance cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 24.07.96 Edition Test oil : ISO 4113

Combination No. : 0 402 646 779

Injection pump

Pump designation : PE6P120A320LS7872 EP type number : 0 412 626 912

Governor

Governer design: : RQ300/1000PA1163 Governer no. : 3 421 801 734

Cust. part No. : 80165-6-4

Customer-spec, information Customer : KHD

: BF6M10150 : 300.0 Motor Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 : + 1.5 Tolerance bar

Test Lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : - 1.0

Prestroke mm : 4.05 Tolerance mm : + 0.05 Check

tolerance mm

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1-6-3-5-2-

: +- 0.10

Phasing : 0-60-120-180-240

: -300

: + 0.50 Tolerance

Check

tolerance °NW : +- 0.75

Start of delivery mark

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 14.00 Tolerance mm :+0.05

Del. quantity cm3/1000 strokes	: 340.0	Tolerance mm : +- 0.10
Tolerance		- Rated speed rpm : 460 - guide sleeve
cm3/1000 strokes	: + 1.0	- travel mm : 6.00 - Tolerance mm : + 0.10
Check tolerance cm3/1000S.	: + 4.0	- Rated speed rpm : 1210
Spreed		guide sleeve travel mm : 11.50
	†	Tolerance mm : +- 0.50
Tolerance cm3/1000 strokes	: 6.0	CHINE CLEEVE DOCTTION
		- GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: 9.0	-
		- control lever
	†	- position degree : 109
Rated speed rpm	: 300	- Rated speed rpm : 465 -
and the same of the contract o	1	- Rack travel in mm : 20.00
Rack travel in m	n: 5.00	- Tolerance mm : +- 0.80
Tolerance am	· · · · · · · · · · · · · · · · · · ·	- Octor direct man
	; 0.10	
Del. quantity cm3/1000 strokes	: 23.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	. 30	
cm3/1000 strokes Check tolerance	+	- Rated speed rpm : 1000 - Aneroid pressure
cm3/1000s.	: ← 6.0 +	- hPa : 1700
Spreed	+	- Del. quantity
Tolerance	1	- cm3/1090 strokes : 340.0
cm3/1000 strokes	: 8.0	- Tolerance
	. 0.0	
Check tolerance	12.0	
cm3/1000s.	: 12.0	- Check tolerance
	†	- cm3/1000s. : + 4.0
	1	- Spreed
(B) SETTING OF IN	NUECTION PUMP	Tolerance
WITH GOVERNOR	†	- cm3/1000 strokes : 6.0
	+	- Check tolerance
		- cm3/1000s. : 9.0
GUIDE SLEEVE TRAN	/EL	-
Rated speed rpm	: 1051	
guide sleeve		- CONTROL LEVER
travel mm	: 6.36	
Tolerance mm	: + 0.10	- control lever
roterance min	; - 0.10	
D-1 1 1	700	the state of the s
Rated speed rpm	: 300	tolerance degree : +- 4.0
guide sleeve	1	
travel mm	: 1.73	- RATED SPEED
Tolerance mm	: +- 0.10 +	- rack travel mm : 13.00
	+	- Rated speed rpm : 1045
Rated speed rpm	: 1000	- Tolerance 1/min : + 5
guide sleeve	4	
travel mm	: 6.00	rack travel mm : 4.00
Tolerance mm	: + 0.10	Rated speed rpm : 1125
OF COUNTY INTO	0.10	- Tolerance 1/min : + 15
Domail appeal are	. 300	Cotetance Marin . 17 17
Rated speed rpm	: 388	mark through the second
guide sleeve	, <u>, , , , , , , , , , , , , , , , , , </u>	rack travel mm : 0.50
travel mm	: 4.79	- Tolerance mm : ← 0.50

	4220		. 47.00
Rated speed rpm	: 1220	- rack travel mm - Tolerance mm	
	-	Start interlock	
LOW IDLE	1	- Rated speed rpm	: > 100
	4	- Rated speed rpm	: < 220
control lever	. 7/ 0	- Chaple	
position degree tolerance degree	: +- 4.0	- Check - speed 1/min	: > 80
	7	- Check	
Setting point w/o		speed 1/min	: < 240
Rated speed rom	: 200	FUEL DELIVERY CHA	ARACTERISTICS
CRT men min.	: > 8.00		
Testing:		Aneroid pressure	
Durand sassad sus		- hPa	: 400
Rated speed rpm	: 300 - : 5.00 -	- Rated speed rpm - Del. quantity	: 400
rack travel mm Tolerance mm	: + 0.10	- cm3/1000 strokes	: 230.0
	-	- Tolerance	
rack travel mm		- cm3/1000 strokes	
Rated speed rpm	365	- Check tolerance - cm3/1000s.	
Tolerance 1/min	: +- 20	- cm3/1000S.	: +- 4.0
TORRUE CONTROL			
TORQUE CONTROL Rated speed rpm	: 1000	STARTING FUEL DE	TVERY
rack travel mm	: 14.00	- 31AK(11:K3 OLL DE.	13. V C ()
Tolerance mm	: +- 0.05	Rated speed rpm	: 100
	-	rack travel mm	: 21.00
ALIEDO - 0 / AL 7777 / D.F.		- Del. quantity	100.0
ANEROID/ALTITUDE COMPENSATOR TEST		- cm3/1000 strokes - Tolerance	: 190.0
COMPENSATOR TEST		- cm3/1000 strokes	: +- 20.0
	- -	- Check tolerance	
SETTING	-	- cm3/1000s.	: ← 24.0
Rated speed rom	: 400		
Pressure hPa	: 1700 -	-	
rack travel mm	: 14.00 -		
Tolerance mm	: + 0.05	LOW IDLE	
Rated speed rpm	: 400	Rated speed rpm	: 300
Pressure hPa	: -	+	
rack travel mm	: 8.90 -	Rack travel in m	
Tolerance mm	: +- 0.20	Tolerance mm Del. quantity	: +- 0.10
MEASUREMENT	•	cm3/1000 strokes	: 23.0
HENOGREIM	-	- Tolerance	. 23.3
Rated speed rpm	: 400	cm3/1000 strokes Check tolerance	: ← 3.0
Pressure hPa	: 365	cm3/1000s.	: + 6.0
rack travel mm	: 9.80	- Spreed	. 0.0
Tolerance mm	: + 0.10 -	Tolerance	
Danage and has	: 1000 -	cm3/1000 strokes	: 8.0
Pressure hPa	. 1000	Γ	

Check tolerance cm3/1000s.	:	12.0	
End of test speci	ficat	tion sheet	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 11.08.94 : ISO 4113

Combination No. : 0 402 646 788

Injection pump

Pump designation: PE6P12OA32OLS7858 EP type number : 0 412 626 875

Governor

Governer design. : RQ300/1050PA1031-11

Governer no. : 9 421 801 680

Cust. part No. : 0240740302

Customer-spec. information Customer : MB-NFZ Motor : 0M401 LA Power KW : 200.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temo. °C 40 Tolerance *C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110
Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 5.55 Tolerance mm : + 0.05

Check

: + 0.10 tolerance mm

Rack travel in mm: 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

: 0-60-120-180-240 Phasing

: -300-360

Tolerance : +- 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 11.75

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 190.0	guide sleeve travel mm : 5.25 Tolerance mm : + 0.10
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 480 guide sleeve travel mm : 6.00
Check tolerance cm3/1000s. : + 4.0	Tolerance mm : + 0.10
Spreed	Rated speed rpm : 1280 guide sleeve trave% mm : 11.50
Tolerance cm3/1000 strokes : 5.0	Tolerance mm : + 0.50
Check tolerance cm3/1000s. 9.0	GUIDE SLEEVE POSITION
Rated speed rpm : 300	control lever position degree : 109 Rated speed rpm : 600
Rack travel in mm: 5.20 Tolerance mm: + 0.10 Del. quantity	Rack travel in mm : 20.00 Tolerance mm : + 0.80
<pre>cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0</pre>	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000S. : + 6.0 Spreed	Rated speed rpm : 1050 Aneroid pressure hPa : 800
Tolerance cm3/1000 strokes : 6.0	Del. quantity cm3/1000 strokes : 190.0
Check tolerance cm3/1000s. : 10.0	Tolerance - cm3/1000 strokes : +- 1.0 - Check tolerance
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	cm3/1000S. :
GUIDE SLEEVE TRAVEL	Check tolerance cm3/1000S. : 9.0
Rated speed rpm : 1103 guide sleeve	
travel mm : 6.38 Tolerance mm : + 0.10	control lever
Rated speed rpm : 300 guide sleeve	position degree : 94.0 tolerance degree : + 4.0
travel mm : 2.59 Tolerance mm : + 0.10	RATED SPEED : 10.75
Rated speed rpm : 1050 guide sleeve travel mm : 6.00	Rated speed rpm : 1098 Tolerance 1/min : + 8
Tolerance mm : + 0.10	rack travel mm : 4.00 Rated speed rpm : 1175
Rated speed rpm : 410	Tolerance 1/min : +- 15

rack travel man		Rated speed rpm	: 500
Tolerance nm Rated speed rpm		rack travel mm Tolerance mm	
		Rated speed rpm	: 400
		Pressure hPa	: 200
LOW IDLE	- - -	rack travel mm Tolerance mm	: 200 : 10.60 : + 0.10
control lever		Pressure hPa	
position degree		rack travel mm	
tolerance degree	: +- 4.0	Tolerance mm	: ← 0.05
Setting point w/o	ut bumper spring	Start interlock	
Rated speed rpm	: 200	t Saturdament and	100
CRT man min.	: > 7.50	Rated speed rpm Rated speed rpm	
Testing:		Check	
_	. 700	speed 1/min Check	: > 80
Rated speed rpm rack travel mm		+ speed 1/min	: < 240
Tolerance ma		- Speed William	
rack travel mm	: 2.00	+ FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm	: 380	+	
Tolerance 1/min	: +- 20	t	
		+ Aneroid pressure + hPa	: 800
TORQUE CONTROL		Rated speed rpm	
Rated speed rpm	: 1050	+ Del. quantity	
rack travel mm		+ cm3/1000 strokes	: 184.0
Tolerance mm	: ← 0.05	Tolerance cm3/1000 strokes	: + 2.0
Rated speed rpm	550	+ Check tolerance	: 2.0
rack travel mm	: 11.75	4- cm3/1000s.	: +- 5.0
Tolerance mm	: +- 0.05	Spreed	
		+ Tolerance + cm3/1000 strokes	: 8.0
ANEROID/ALTITUDE		+ Check tolerance	: 8.0
COMPENSATOR TEST		- cm3/1000s.	: 12.0
		‡ <u></u>	
SETTING		+ Aneroid pressure	7.54
Dated aread	. 400	+ hPa + Rated speed rpm	: 350 : 400
Rated speed rpm Pressure hPa	: 400 : 800	+ Del. quantity	. 400
rack travel mm	: 11.75	+ cm3/1000 strokes	: 150.0
Tolerance mm	: - 0.05	+ Tolerance	
Batad annad	. 400	+ cm3/1000 strokes + Check tolerance	: + 1.5
Rated speed rpm Pressure hPa	: 400	+ cm3/1000s.	: +- 4.5
rack travel nm	9.75	+	,,,,
Tolerance mm	: ← 0.15	t ———	
MEASUREMENT		+ Aneroid pressure + hPa	• ~
FIEASURE/TEVI		Rated speed rpm	500
Pressure hPa	: -	+	-

Del. quantity
cm3/1000 strokes : 127.0
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 4.0
Spreed
Tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

STARTING FUEL DELIVERY

Del. quantity
cm3/1000 strokes : 220.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s. : + 14.0

Rated speed rpm : 100

LOW IDLE

Rated speed rpm : 300 Rack travel in mm: 5.20 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s. : +- 6.0 Spireed Tolerance cm3/1000 strokes : 6.0 Check tolerance : 10.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.02.87 : ISO 4113 Test oil

Combination No. : 0 402 646 803

Injection pump

Pump designation : PE6P120A720RS7004 EP type number : 0 412 626 801

Sovernor

Governer design. : RQ750PA528 Governer no. : 0 421 801 126

Cust. part No. :

Customer-spec. information

: SAAB-SCANIA Customer Motor : s. Bemerkungen

TEST BENCH REQUIREMENTS

Inlet line : 2.4

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

208.5 1.5 Tolerance bar

: 1 680 750 015 Test lines

Outside diameter : 6.0

x inside diameter: 1.5

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : \leftarrow 1.0

Prestroke mm : 5.05 : +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance $m_{\rm m}$: + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : **←** 0.50

check

tolerance *NW : +- 0.75

BASIC SETTING

Del. quantity

cm3/1000 strokes : 210.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

: +- 4.0 cm3/1000s.

Spreed

Tolerance

cm3/?000 strokes : 6.0

Check tolerance

9.0 cm3/1000s. :

(B) SETTING OF	INJECTION	PUMP
WITH GOVERNOR		

FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm Aneroid pressure	: 700
merota pressure hPa	
Del. quantity	•
cm3/1000 strokes	: 210.0
Tolerance	. 210.0
cm3/1000 strokes	: ← 1.0
Check tolerance	
cm3/1000s.	: +- 4.0
Spreed	
Tolerance	
cm3/1000 strokes	: 6.0
Check tolerance	. 0.0
cm3/1000s.	: 9.0
CONTROL LEVER	
control lever	
position degree	: 87.0
tolerance degree	: ← 4.0
DATEN ODEEN	
RATED SPEED	: 11.80
rack travel mm Rated speed rpm	: 11.80 : 753
Tolerance 1/min	: +- 3
TOTAL MINE TO THE PERSON OF TH	
rack trävel mm	: 4.00
Rated speed rpm	: 791
Tolerance 1/min	: - 7
ASSEMBLY GOVERNOR	SETTING
	750
Rated speed rpm rack travel mm	: 750
I GCV FI GACT WHE	. 11.00
Rated speed rpm	: 788
Tolerance 1/min	: +- 4
rack travel mm	: 4.00
	0.50
rack travel mm	: 0.50
Tolerance mm	: ← 0.50 : 850
Rated speed rpm	. 650
Rated speed rpm	: 751
rack travel mm	: 11.80
Rated speed rpm	: 789
Tolerance 1/min	: +- 4
rack travel mm	: 4.00

rack travel mm Tolerance mm Rated speed rpm	: : +-	0.50 0.50 850
Rated speed rpm rack travel mma		752 11.80
Rated speed rpm Tolerance 1/min rack travel mm	: +	790 4 4.00
rack travel mma Tolerance mm Rated speed rpm	: +-	0.50 0.50 850
Rated speed rpm rack travel mm	•	753 11.80
Rated speed rpm Tolerance 1/min rack travel mm	: : +-	791 4 4.00
rack travel mm Tolerance mm Rated speed rpm	: +-	0.50 0.50 850
Rated speed rpm rack travel mm	•	754 11.80
Rated speed rpm Tolerance 1/min rack travel mm	: +-	792 4 4.00
rack travel mm Tolerance mm Rated speed rpm	: : +- :	0.50 0.50 850
Rated speed rpm rack travel mm	•	755 11.80
Rated speed rpm Tolerance 1/min rack travel mm	: +-	793 4 4.00
rack travel mm Tolerance mm Rated speed rpm	: +-	0.50 0.50 850

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity cm3/1000 strokes : 265.0

Tolerance cm3/1000 strokes : +- 25.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 05.10.94 Test oil : ISO 4113

Combination No. : 0 402 646 892

Injection pump

Pump designation : PE6P120A720RS7170

EP type number : 0 412 626 829

Governor

Governer design. : RQSDCPA758-12 Governer no. : 0 421 801 500

Cust. part No. : 1305084

Customer—spec. information Customer : SCANIA Motor : DS 11

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Vibration

damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. *C : 40
Tolerance *C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0
Tolerance bar : + 1.0

Prestroke mm : 5.05 Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 850

Rack travel in mm : 12.55 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 247.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

MO5

Spreed		+ Rated speed rpm + Aneroid pressure	: 850
Tolerance cm3/1000 strokes	: 7.0	+ hPa - Del. quantity	: 900
Check tolerance	****	+ cm3/1000 strokes + Tolerance	: 247.0
cm3/1000s.	: 10.0	+ cm3/1000 strokes Check tolerance	: +- 1.0
		cm3/1000s. Spreed	: +- 4.0
Rack travel in m	3 : 5.90	+ Tolerance + cm3/1000 strokes	: 7.0
Tolerance mm		+ Check tolerance	. 7.0
Del. quantity		cm3/1000s.	: 10.0
cm3/1000 strokes	: 16.0	+	
Tolerance	: + 4.0	†	
cm3/1000 strokes Check tolerance	: 4.0	T CONTROL LEVER	
cm3/1000S.	: +- 6.0	+	
Spreed		+ control lever	04.0
Tolerance cm3/1000 strokes	: 4.0	position degreetolerance degree	
Check tolerance	: 4.0	+ toterance degree	4.0
cm3/1000S.	: 7.0	+	
		ASSEMBLY COVERNOR	R SETTING
(B) SETTING OF I	NUFCTION PUMP	Rated speed rpm	: 900
WITH GOVERNOR		rack travel mm	
		Rated speed rpm	: 946
GUIDE SLEEVE TRA	VEL	+ Tolerance 1/min	: +- 4
		+ rack travel mm	: 4.00
Rated speed rpm guide sleeve	: 909	† rack travel mm	: 0.50
travel mm	: 3.73	+ Tolerance mm	: ← 0.50
Tolerance mm	: ← 0.25	Rated speed rpm	: 1000
Rated speed rpm	: 630	+	•••
guide sleeve	7 07	+ Rated speed rpm + rack travel mm	: 901
travel mmn Tolerance mm	: -7.07 : +- 0.25	rack travel mm	: 11.50
TO COLON ICC MAIN		+ Rated speed rpm	: 947
Rated speed rpm	: 1050	+ Tolerance 1/min	: +- 4
guide sleeve	: 16.80	† rack travel mm	: 4.00
travel mem Tolerance mm		T rack travel mm	: 0.50
to cet on tee man	• • • • • • • • • • • • • • • • • • • •	Tolerance mm	
Rated speed rpm	: 989	Rated speed rpm	
guide sleeve	. 40.00	†	
travel mm Tolerance mm	: 10.00 : +- 0.25	Rated speed rpm	: 902
		rack travel mm	
Rated speed rpm	: 1050	+	
guide sleeve	44.50	+ Rated speed rpm	: 948
travel mm	: 11.50	+ Tolerance 1/min	
Tolerance mm	: + 0.50	+ rack travel mm	: 4.00
		T rack travel mm	: 0.50
FULL LOAD DELIVE	RY AT FULL LOAD STOP	+ Tolerance mm	: 0.50
		+ Rated speed rpm	: 1000

Rated speed rpm rack travel mm	:	903 11.50
Rated speed rpm	:	949

Tolerance 1/min : +rack travel mm : 4.00

Rated speed rpm : 1000

Rated speed rpm : 904 11.50 rack travel mm

950 Rated speed rpm : Tolerance 1/min : + 4.00 rack travel mm :

rack travel mm : 0.50 : **←** 0.50 Tolerance mm Rated speed rpm : 1000

905 Rated speed rpm : rack travel mm : 11.50

951 Rated speed rpm : Tolerance 1/min : + rack travel mm 4.00

rack travel mm : 0.50 Tolerance mm : + 0.50 0.50 Rated speed rpm : 1000

TORQUE CONTROL

Rated speed rpm : 850 rack travel mm : 12.55 : +- 0.05 Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

500 Rated speed rpm : Pressure hPa : rack travel mm : 900 12.55 : **←** 0.05 Tolerance mm

Rated speed rpm : 500 Pressure hPa : : 9.90 rack travel mm Tolerance mm : \leftarrow 0.20

MEASUREMENT

Rated speed rpm : 500 Pressure hPa : rack travel mm : 370 10.85 Tolerance mm : +- 0.15

Pressure hPa : 575 rack travel mm : 12.05 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 152.0 Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance cm3/1000s.

: +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 9.90 Tolerance mm : + 0.20 Del. quantity

cm3/1000 strokes : 110.0

Tolerance

cm3/1000 strokes : +- 20.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.11.93 Test oil : ISO 4113

Combination No. : 0 402 646 915X

Injection pump

Pump designation: PE6P120A320LS7836

: -10

EP type number : 0 412 626 854

Governor

Governer design. : RQ300/1050PA972 Governer no. : 0 421 801 542

Cust. part No. : 0200740202

Customer—spec. information Customer : MB-NFZ Motor : 0M401 LA Power KW : 200.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.50 Tolerance mm: + 0.50

Firing order : 6-3-5-2-4-

: 1

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 13.20 Tolerance mm: +- 0.05

Del. quantity cm3/1000 strokes : 202.5	† Tolerance mm : ← 0.10
Tolerance	Rated speed rpm : 520 guide sleeve
cm3/1000 strokes : + 1.0	travel mm : 6.00
	+ Tolerance mm : + 0.10
Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 1280
Spreed	+ guide steeve + travel mm : 11.50
Spi eeu	Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
Check tolerance	I GOIDE SEEENE POSITION
cm3/1000s. : 9.0	I
	control lever position degree : 109 Rated speed rpm : 600
Rated speed rpm : 300	+
- 1	+ Rack travel in mm : 20.00
Rack travel in mm: 5.60	† Tolerance mm : + 0.80
Tolerance mm : + 0.10 Del. quantity	
cm3/1000 strukes : 19.0 Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 3.0	Rated speed rpm : 1050
Check tolerance	+ Aneroid pressure
$cm3/1000s.$: \leftarrow 6.0	+ hPa : 1400
Spreed	+ Del. quantity
Toterance	- cm3/1000 strokes : 202.5
cm3/1000 strokes : 6.0	+ Tolerance
Check tolerance cm3/1000s. : 10.0	+ cm3/1000 strokes : + 1.0
cm3/1000s. : 10.0	+ Check tolerance + cm3/1000s. : + 4.0
	- Spreed - 4.0
(B) SETTING OF INJECTION PUMP	Tolerance
WITH GOVERNOR	- cm3/1000 strokes : 5.0
Harri god and and	Check tolerance
	- cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	+
	+
Rated speed rpm : 1108	2017001 15:55
guide sleeve	CONTROL LEVER
travel mm : 6.37 Tolerance mm : + 0.10	t control lever
Tolerance mm : ← 0.10	position degree : 98.0
Rated speed rpm : 300	tolerance degree : +- 4.0
guide sleeve	total and degree
travel nam : 1.44	+ RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 12.20
	Rated speed rpm : 1098
Rated speed rpm : 1050 guide sleeve	Tolerance 1/min : +- 8
travel mm : 6.00	rack travel mm : 4.00
Tolerance mm : + 0.10	Rated speed rpm : 1180
	Tolerance 1/min : +- 15
Rated speed rpm : 404	t mark tunical mm . 0.75
guide steeve travel mm : 3.86	rack travel mm : 0.75 Tolerance mm : +- 0.75
travel mm : 3.86	T forerance unit : T 0.75

Rarted speed rpm	: 1300	Pressure hPa Rated speed rpm rack travel mm Tolerance mm	
LOW IDLE		Rated speed rpm	: 400
control lever position degree tolerance degree		Pressure hPa Tolerance mm	: 200 : + 0.10
Setting point w/o	out bumper spring	+ Pressure hPa Tolerance mm	: 350 : ← 0.05
Rated speed rpm	: 200	‡	
CRT mm min.	: > 7.50	FUEL DELIVERY CHA	RACTERISTICS
Testing:		Aneroid pressure	
Rated speed rpm rack travel mm Tolerance mma	: 5.60	hPa Rated speed rpm Del. quantity	: 1400 : 800
rack travel mm Rated speed rpm	: 2.00	cm3/1000 strokes Tolerance cm3/1000 strokes	
Tolerance 1/min	: + 20	Check tolerance cm3/1000s.	: ← 5.0
TORQUE CONTROL Rated speed rpm rack travel mm		Tolerance cm3/:000 strokes Check tolerance	: 8.0
Tolerance mm		cm3/1000s.	: 12.0
Rated speed rpm rack travel mm Tolerance mm	: 13.20	rack travel mm Tolerance mm	: 13.20 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 13.20	Aneroid pressure hPa Rated speed rpm	: 350 : 400
ANEROID/ALTITUDE COMPENSATOR TEST		Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	
SETTING		Check tolerance cm3/1000s.	: +- 4.5
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1400	Aneroid pressure hPa Rated speed rpm	: - : 500
Rated speed rpm Pressure hPa rack travel mm	10.25	Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	
Tolerance mm MEASUREMENT	: ← 0.15	Check tolerance cm3/1000s. Spreed	: +- 4.0

Tolerance cm3/1000 strokes : 8.0

Check tolerance cm3/1000s.

12.0

STARTING FUEL DELIVERY

100 Rated speed rpm

rack travel mm : 10.25 Tolerance mm : **←** 0.15

Del. quantity

cm3/1000 strokes : 60.0

Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance

cm3/1000s. : **←** 14.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: 5.60

Tolerance mm : ← 0.10

Del. quantity cm3/1000 strokes : 19.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

: +- 6.0 cm3/1000s.

Spreed

Tolerance

6.0 cm3/1000 strokes :

Check tolerance

10.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 08.11.93 Edition Test oil : ISO 4113

Combination No. : 0 402 646 922X

Injection pump

Pump designation : PE6P12OA32OLS7834 .

: -10

EP type number : 0 412 626 853

Governor

Governer design: : RQ300/1050PA972-2 Governer no. : 0 421 801 556

Cust. part No. : 0200741102

Customer-spec. information Customer : MB-NFZ Motor : 0M401 LA Power KW : 213.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 5.55 Tolerance mm : + 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm: 20.50 : ← 0.50 Tolerance mm

Firing order : 6-3-5-2-4-: 1

: 0-60-120-180-240 Phasing

: -300

: +- 0.30 Tolerance

Check

: **←** 0.75 tolerance *NW

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 14.10

: +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 217.5	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
Tolerance cm3/1000 strokes : + 1.0	cm3/1000s. : +- 4.0 Spreed Tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
Spreed	ths/10003 /.u
Toterance cm3/1000 strokes : 5.0	CONTROL LEVER
Check tolerance cm3/1000s. : 9.0	control lever position degree : 97.0 tolerance degree : +- 4.0
Rated speed rpm : 300	RATED SPEED rack travel mm : 13.10 Rated speed rpm : 1098
Rack travel in mm : 6.20 Tolerance mm : + 0.10	Tolerance 1/min : + 8
Del. quantity cm3/1000 strokes : 19.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 1190 Tolerance 1/min : +- 15
cm3/1000 strokes : + 3.0 + Check tolerance cm3/1000s. : + 6.0 +	rack travel mm : 0.75 Tolerance mm : + 0.75
Spreed + Tolerance	Rated speed rpm : 1300
cm3/1000 strokes : 6.0 + Check tolerance	
cm3/1000s. : 10.0	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 72.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
control lever	Rated speed rpm : 200
position degree : 109 + Rated speed rpm : 600 +	CRT mm min. :> 8.50
Rack travel in mm: 20.00	Testing:
Tolerance mm : + 0.80	Rated speed rpm : 300 rack travel mm : 6.20 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00
Rated speed rpm : 1050 + Aneroid pressure	Rated speed rpm : 400 Tolerance 1/min : +- 20
hPa : 1500 + Del. quantity +	
cm3/1000 strokes : 217.5 +	TORQUE CONTROL

rack travel mm Tolerance mm	: 14.10 : ← 0.05	+ Tolerance + cm3/1000 st	rokes : 8.0
torelance in	0.03	Check toler	
Rated speed rpm	: 800	- cm3/1000s.	
rack travel mm	: 14.10	+	, ,,,,,
Tolerance mm	: ← 0.05	+ -	
		+ rack travel	
Rated speed rpm	: 600	+ Tolerance m	m : + 0.05
rack travel mm		†	
Tolerance mm	: ← 0.05	Aneroid pre	COLIDO
	 	hPa	: 350
ANEROID/ALTITUDE		+ Rated speed	
COMPENSATOR TEST		+ Del. quanti	
			rokes : 150.0
		+ Tolerance	
SETTING		+ cm3/1000 st	
.	. /00	+ Check toler	
Rated speed rpm Pressure hPa	: 400 : 1500	+ cm3/1000s.	: +- 4.5
rack travel mm	: 14.10	Ĭ	
Tolerance mm	: + 0.05	Aneroid pre	ssure
10201 @100 124		+ hPa	: -
Rated speed rpm	: 400	+ Rated speed	irpm : 500
Pressure hPa	: -	+ Del. quanti	
rack travel mm	: 9.45		rokes : 130.0
Tolerance mm	: ← 0.15	+ Tolerance	
MEACUNEMENT		+ cm3/1000 st + Check toler	
MEASUREMENT		- cm3/1000s.	
Pressure hPa	: -	- Spreed	• • •••
Rated speed rom	: 500	+ Tolerance	
rack travel mm	: 9.45	+ cm3/1000 st	
Tolerance mm	: ← 0.15	+ Check toler	
~	/ 00	+ cm3/1000s.	: 12.0
Rated speed rpm	: 400	+	
Pressure hPa	: 350	I	
Tolerance mn	: + 0.05	+ STARTING FU	IEL DELIVERY
, , , , , , , , , , , , , , , , , , , ,		+	
Pressure hPa	: 550	+ Rated speed	
rack travel mm		+ Det. guenti	ty
Tolerance mm	: ← 0.10		rokes : 60.0
		Tolerance	rokes : +- 15.0
		Check toler	
FUEL DELIVERY CHA	RACTERISTICS	- cm3/1000s.	
		+	
		· +	
Aneroid pressure	4500	†	
hPa	: 1500 : 800	LOW IDLE	
Rated speed rpm Del. quantity	: 600	I LOW TOLE	
cm3/1000 strokes	: 218.0	Rated speed	1 rpm : 300
Tolerance		1	, . ₍
cm3/1000 strokes	: ← 2.0		in mm: 6.20
Check tolerance		· · · · · · · · · · · · · · · · · · ·	nn : + 0.10
cm3/1000s.	: ← 5.0	+ Del. quanti	
Spreed		+ cm3/1000 st	rokes : 19.0
		+	

Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		
cm3/1000s.	: +-	6.0
Spreed		
Tolerance		
cm3/1000 strokes	:	6.0
Check tolerance		
cm3/1000s.	:	10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.09.93 : ISO 4113 Edition Test oil

Combination No. : 0 402 646 924X

Injection pump

Pump designation : PE6P12OA320LS7837

: -10

EP type number : 0 412 626 855

Governor

Governer design. : RQ300/950PA971-3 Governer no. : 0 421 801 557

Cust. part No. : 0200743202

Customer-spec. information Customer : MB-NFZ Motor : OM401 ! : OM401 LA Motor Power KW : 250.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05

Check

: + 0.10 tolerance mm

Rack travel in mm: 20.50 Tolerance mm : \leftarrow 0.50

Firing order : 6-3-5-2-4-

: 0-60-120-180-240 Phasing

: -300-360

Tolerance : +- 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Del. quantity

cm3/1000 strokes : 245.0

Tolerance

cm3/1000 strokes : +- 1.0

M16

Check tolerance cm3/1000s. : +- 4.0	Rated speed rpm : 1160 guide sleeve
Spreed	travel mm : 11.50 Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
Check tolerance : 9.0	+
700	+ control lever + position degree : 109 + Rated speed rpm : 600
Rated speed rpm : 300	Rack travel in mm: 20.00
Rack travel in mm: 5.90 Tolerance mm: : + 0.10 Del. quantity	Tolerance mm : + 0.80
cm3/1000 strokes : 19.0 Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : +- 3.0 Check tolerance	Rated speed rpm : 600 Aneroid pressure
cm3/1000s. : +- 6.0 Spreed	hPa : 1200 Del. quantity
Tolerance cm3/1000 strckes : 6.0	cm3/1000 strokes : 245.0
Check tolerance cm3/1000s. : 10.0	+ cm3/1000 strokes : +- 1.0 + Check tolerance
	cm3/1000s. : +- 4.0 Spreed
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance cm3/1000 strokes : 5.0 Check tolerance
GUIDE SLEEVE TRAVEL	cm3/1000s. : 9.0
Rated speed rpm : 1010 guide sleeve	CONTROL LEVER
travel mm : 6.68 Tolerance mm : + 0.10	t control lever
	position degree : 98.0
Rated speed rpm : 300 guide sleeve	tolerance degree : + 4.0
travel mm : 2.12 Tolerance mm : + 0.10	RATED SPEED : 14.05
Rated speed rpm : 950	Rated speed rpm : 998 Tolerance 1/min : +- 8
guide sleeve travel mm : 6.35	rack travel man : 4.00
Tolerance mm : + 0.10	Rated speed rpm : 1095 Tolerance 1/min : +- 15
Rated speed rpm : 401 guide sleeve	rack travel mm : 0.75
travel mm : 4.49	Tolerance man : + 0.75
Tolerance mm : + 0.10	Rated speed rpm : 1200
Rated speed rpm : 500 guide sleeve	+
travel mm : 6.00	101705
Tolerance mm : + 0.10	+ LOW IDLE

control lever position degree tolerance degree	: 74.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 8.20
Testing:	
Rated speed rpm rack travel mma Tolerance mma	: 300 : 5.90 : + 0.10
rack travel mma Rated speed rpm Tolerance 1/min	
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 15.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1200 : 15.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 9.05 : ← 0.15
MEASUREMENT	
Rated speed rpm	: 600
Pressure hPa rack travel mm Tolerance mm	: 150 : 9.70 : ← 0.10
Pressure hPa rack travel mms Tolerance mm	: 550 : 13.45 : ← 0.05

FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure hPa Rated speed rpm Tolerance	: 1200 : 950	
cm3/1000 strokes Check tolerance	: + 2.0	
cm3/1000s.	: + 5.0	
Tolerance cm3/1000 strokes	: 8.0	
Check tolerance cm3/1000s.	: 12.0	
Aneroid pressure		
hPa Rated speed rpm	: 550 : 4 0 0	
Del. quantity cm3/1000 strokes	: 204.5	
Tolerance cm3/1900 strokes Check tolerance	: + 1.5	
cm3/1000s.	: + 4.5	
Aneroid pressure		
hPa Rated speed rpm	500	
Del. quantity cm3/1000 strokes	: 133.0	
Tolerance cm3/1909 strokes Check tolerance	: +- 1.0	
cm3/1000s.	: +- 4.0	
Tolerance cm3/1000 strokes	: 8.0	
Check tolerance cm3/1000s.	: 12.0	
	·	
STARTING FUEL DEL	IVERY	
Rated speed rpm rack travel mm Tolerance mm	: 100 : 9.10 : + 0.20	
Del. quantity cm3/1000 strokes	: 80.0	
Tolerance	· +- 15.0	

cm3/1000 strokes : + 15.0 Check tolerance cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm	:	300	
.010. @ ,00	: +-	5.90 0.10	
Del. quantity cm3/1000 strokes Tolerance	:	19.0	
cm3/1000 strokes Check tolerance	: +-	3.0	
cm3/1000s.	: +-	6.0	
Tolerance cm3/1000 strokes	:	6.0	
Check tolerance cm3/1000s.	:	10.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) \\400/...

: 07.09.93 Edition Test oil : ISO 4113

Combination No. : 0 402 646 925X

Injection pump

Pump designation: PE6P120A320LS7837

: -10

EP type number : 0 412 626 855

Governor

Governer design. : RQV300...950PA797

: -20

Governer no. : 0 421 813 893

Cust. part No. : 0200743302

Customer-spec. information Customer : MB-NFZ : 0M441 LA : 250.0 Motor Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

1.5 Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

: 110 min. L/h Tolerance l/h: + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar

Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25 Tolerance mm : +- 0.05

Check

: + 0.10 tolerance mm

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

: 0-60-120-180-240 Phasing

: -300-360

Tolerance : +- 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Del. quantity

cm3/1000 strokes : 245.0

Tolerance

cm3/1000 strokes : +- 1.0

M20

	1	Tolerance	
Check tolerance cm3/1000s.	: + 4.0	cm3/1000 strokes Check tolerance	
Spreed		cm3/1000s.	: 9.0
Tolerance cm3/1000 strokes	: 5.0	CONTROL LEVER	
Check tolerance cm3/1000s.	: 9.0	control lever position degree tolerance degree	: 124.0 : + 4.0
Rated speed rpm	. +	RATED SPEED rack travel mmn Rated speed rpmn	: 14.05 : 995
Rack travel in man Tolerance man Del. quantity	T		: + 5 : 4.00
cm3/1000 strokes Tolerence	+	Rated speed rpm	1100 + 15
cm3/1000 strokes Check tolerance cm3/1000s.	: + 3.0 : + 6.0	rack travel mm Tolerance mm	: 0.50 : + 0.50
Spreed Tolerance	+		: 1200
cm3/1000 strokes Check tolerance cm3/1000s.	: 6.0		
(B) SETTING OF IN	LECTION PUMP	LOW IDLE	
WITH GOVERNOR		position degree tolerance degree	: 86.0 : + 4.0
GUIDE SLEEVE POST	TION	Setting point W/ou	
control lever	‡	•	: 200
position degree Rated speed rpm	: -1 : 1025	CRT mm min. Testing:	: > 7.70
Rack travel in mm Tolerance mm		Rated speed rpm rack travel mm Tolerance mm	: 300 : 5.90 : + 0.10
FULL LOAD DELIVER	Y AT FULL LOAD STOP	Rated speed rpm	
Rated speed rpm Aneroid pressure	: 600	TORQUE CONTROL	
hPa Del. quantity cm3/1000 strokes	+		: 950
Tolerance cm3/1000 strokes	+	Rated speed rpm rack travel mm Tolerance mm	: 15.05 : + 0.05
Check tolerance cm3/1000s. Spreed	: + 4.0		

ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 600 : 1200 : 15.05 : ← 0.05
Rated speed rom Pressure hPa rack travel mmu Tolerance mm	: 500 : - : 9.05 : + 0.15
MEASUREMENT	
Rated speed rpm	: 600
Pressure hPa rack travel mm Tolerance mm	: 150 : 9.70 : ← 0.10
Pressure hPa rack travel mma Tolerance mma	: 550 : 13.45 : + 0.05
Start interlock	***************************************
Rated speed rpm Rated speed rpm	: > 100 : < 240
Check speed 1/min	; > 80
Check speed 1/min	: < 260
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa Rated speed rpm Tolerance	: 1200 : 950
cm3/1000 strokes Check tolerance	: + 2.0
cm3/1000s.	: +- 5.0
Tolerance cm3/1000 strokes Check tolerance	: 8.0

Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +	550 400 204.5 - 1.5 - 4.5	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + : +	500 133.0 - 1.0 - 4.0 8.0 12.0	
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	:	100 260.0 10.0 14.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes		300 5.90 - 0.10 19.0 - 3.0	
Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +	- 6.0 6.0 10.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.09.93 Test oil : ISO 4113

Combination No. : 0 402 646 926X

Injection pump

Pump designation : PE6P129A320LS7834 .

: -10

EP type number : 0 412 626 853

Governor

Governer design. : RQV300...950PA797

: -19

Governer no. : 0 421 813 901

Cust. part No. : 0180740502

Customer—spec. information Customer : MB-NFZ Motor : OM401 LA Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. *C : 40
Tolerance *C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 Tolerance : + 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Del. quantity

cm3/1000 strokes : 241.0

Tolerance

cm3/1000 strokes : + 1.0

	+	Tolerance
Check tolerance cm3/1000s.	: + 4.0	cm3/1000 strokes : 6.0 Check tolerance
Spreed		cm3/1000s. : 9.0
Tolerance cm3/1000 strokes	: 6.0	CONTROL LEVER
Check tolerance cm3/1000s.	: 9.0	control lever position degree : 122.0 tolerance degree : +- 4.0
Rated speed rpm	+	RATED SPEED rack travel mm : 14.00 Rated speed rom : 995
Rack travel in mm Tolerance mm		Tolerance 1/min : +- 5
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	+	rack travel mm : 4.00 Rated speed rpm : 1085 Tolerance 1/min : +- 15
Check tolerance cm3/1000s. Spreed	: + 6.0	rack travel mm : 0.70 Tolerance mm : + 0.70 Rated speed rpm : 1200
Tolerance cm3/1000 strokes Check tolerance	+	
cm3/1000s.	: 10.0	LOW IDLE
(B) SETTING OF INJ WITH GOVERNOR	JECTION PUMP	control lever position degree : 86.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSIT	TION	Setting point w/out bumper spring
control lever	+	Rated speed rpm : 200
position degree Rated speed rpm	: -1 : 1020 +	CRT mm min. :> 8.50
Rack travel in mm		Testing:
Tolerance mm	+	Rated speed rpm : 300 rack travel mm : 6.60 Tolerance mm : +- 0.10
	AT FULL LOAD STOP	Rated speed rpm : 400
Rated speed rpm Aneroid pressure hPa	: 1200	TORQUE CONTROL
Del. quantity cm3/1000 strokes	+	
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm : 950 rack travel mm : 15.00 Tolerance mm : +- 0.10
Check tolerance cm3/1000S. Spreed	: ← 4.0	Rated speed rpm : 800 rack travel mm : 15.30 Tolerance mm : + 0.10
	т	Oceranice man . To U.IU

ANEROID/ALTITUDE COMPENSATOR TEST	
setting	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 550 : 1200 : 15.30 : + 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 10.25 : + 0.15
MEASUREMENT	
Rated speed rpm	: 550
Pressure hPa rack travel mm Tolerance mm	: 550 : 12.90 : + 0.05
Pressure hPa rack travel mm Tolerance mm	: 250 : 10.90 : + 0.10
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 240
Check speed 1/min	: > 30
Check speed 1/min	: < 260
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	4200
hPa Rated speed rpm	: 1200 : 950
Del. quantity cm3/1000 strokes	: 237.5
Tolerance cm3/1000 strokes	: + 2.0
Check tolerance cm3/1000s.	: ← 5.0
Spreed	. —).0

rack travel mm	: 15.30
Toterance man	; + 0.10
TOTEL WILL WITH	. , , 0,10
Aneroid pressure	
hPa	: 550
Rated speed rpm	: 400
Del. quantity	
cm3/1000 strokes	: 190.0
Tolerance	
cm3/1000 strokes	: ← 1.5
Check tolerance	
cm3/1000s.	: ← 4.5
<u></u>	
Aneroid pressure	
hPa	
Rated speed rpm	: 500
Del. quantity	: 135.0
cm3/1000 strokes	: 135.0
Tolerance cm3/1000 strokes	; + 1.0
Check tolerance	; TT 1.0
cm3/1000s.	: ← 4.0
Spreed	4.0
Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance	: 8.0
cm3/1000s.	: 12.0
STARTING FUEL DEL	
Rated speed rpm	: 100
Del. quantity	
cm3/1000 strokes	: 215.0
Tolerance	A -
cm3/1000 strokes	: + 15.0
Check tolerance	
cm3/1000s.	: + 19.0
LOW IDLE	
Rated speed rpm	: 300
Danie America I de la	440
Rack travel in mm	0 : 6.60 : ← 0.10
Tolerance mm	; 0.10
Del. quantity	: 19.0
cm3/1000 strokes	: 19.0
Tolerance cm3/1000 strokes	: ← 3.0
Check tolerance	, - 5.0
CHECK COLECANCE	

Check tolerance cm3/1000s. : + 6.0

Spreed

Spreed Tolerance

cm3/1000S.

cm3/1000 strokes : 8.0

: 12.0

Check tolerance

Tolerance cm3/1000 strokes : Check tolerance cm3/1000s. : 6.0

: 10.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 10.09.93 Test oil : ISO 4113

Combination No. : 0 402 646 929X

Injection pump

Pump designation : PE6P120A320LS7834 ...

: -10

EP type number : 0 412 626 853

Governor

Governer design. : RQV300...1050PA797

: -25

Governer no. : 0 421 813 924

Cust. part No. : 0200744102

Customer—spec. information Customer : MB-NFZ Motor : 0M401 LA Power KW : 230.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5

Tolerance bar : \leftarrow 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360

Tolerance : + 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Del. quantity cm3/1000 strokes : 241.0

Tolerance

cm3/1000 strokes : +- 1.0

	4	Tolerance
Check tolerance cm3/1000s.	: + 4.0	cm3/1000 strokes : 6.0 Check tolerance
Spreed		cm3/1000s. : 9.0
Tolerance	Ţ	
cm3/1000 strokes	: 6.0	CONTROL LEVER
Check tolerance		control lever
cm3/1000s.	9.0	position degree : 124.0 tolerance degree : +- 4.0
	Ī	RATED SPEED
Rated speed rpm	: 300	rack travel mm : 14.00 Rated speed rpm : 1095
Rack travel in mm		Tolerance 1/min : + 5
Tolerance mm Del. quantity	: + 0.10	rack travel mm : 4.00
cm3/1000 strokes	: 19.0	Rated speed rpm : 1185
Tolerance	+	Tolerance 1/min : +- 15
cm3/1000 strokes	: +- 3.0 +	rack travel mm : 0.70
Check tolerance cm3/1000s.	: + 6.0	Tolerance mm : 0.70
Spreed	+	Rated speed rpm : 1300
Tolerance	+	
cm3/1000 strokes Check tolerance	: 6.0	
cm3/1000s.	: 10.0	LOW IDLE
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	control Lever position degree : 89.5
		tolerance degree : + 2.5
GUIDE SLEEVE POSI	TION	Setting point w/out bumper spring
control lever	‡	Rated speed rpm : 200
position degree Rated speed rpm		CRT mm min. :> 8.70
Rack travel in mm	+	Testing:
rask travet in mm Tolerance mm		
	· 1.50	Rated speed rpm : 300
	1.30	Rated speed rpm : 300 rack travel mm : 6.60
SILL LOAD DELTVED		Rated speed rpm : 300 rack travel mm : 6.60 Tolerance mm : +- 0.10
FULL LOAD DELIVER	Y AT FULL LOAD STOP	Rated speed rpm : 300 rack travel mm : 6.60 Tolerance mm : + 0.10 Rated speed rpm : 400
Rated speed rpm	Y AT FULL LOAD STOP	rack travel mm : 6.60 Tolerance mm : + 0.10
Rated speed rpm Aneroid pressure hPa	Y AT FULL LOAD STOP	rack travel mm : 6.60 Tolerance mm : +- 0.10
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes	Y AT FULL LOAD STOP : 550 : 1200	rack travel mm : 6.60 Tolerance mm : + 0.10 Rated speed rpm : 400 TORQUE CONTROL Rated speed rpm : 1050
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 550 : 1200 : 241.0	rack travel mm : 6.60 Tolerance mm : + 0.10 Rated speed rpm : 400 TORQUE CONTROL
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 550 : 1200 : 241.0 : + 1.0	rack travel mm : 6.60 Tolerance mm : + 0.10 Rated speed rpm : 400 TORQUE CONTROL Rated speed rpm : 1050 rack travel mm : 15.00 Tolerance mm : + 0.10
Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 550 : 1200 : 241.0	rack travel mm : 6.60 Tolerance mm : + 0.10 Rated speed rpm : 400 TORQUE CONTROL Rated speed rpm : 1050 rack travel mm : 15.00

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 550
Pressure hPa : 1200
rack travel mm : 15.30
Tolerance mm : +- 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 10.25
Tolerance mm : + 0.15

MEASUREMENT

Rated speed rpm : 550

Pressure hPa : 550 rack travel mm : 12.90 Tolerance mm : ← 0.05

Pressure hPa : 250
rack travel ma : 10.90
Tolerance mm : + 0.10

Start interlock

Rated speed rpm : > 100 Rated speed rpm : < 240

Check

speed 1/min : > 80

Check

speed 1/min : < 260

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa

hPa : 1200 Rated speed rpm : 1050

Del. quantity

cm3/1000 strokes : 235.5

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : +- 5.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

rack travel mm : 15.30 Tolerance mm : + 0.10

Aneroid pressure

hPa : 550 Rated speed rpm : 400

Del. quantity

cm3/1000 strokes : 190.0

Tolerance

cm3/1000 strokes : +- 1.5

Check tolerance

cm3/1000s. : +- 4.5

Aneroid pressure

hPa : Rated speed rpm : 500

Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 135.0

Tolerance

cm3/1000 strokes : +- 1.0 Check tolerance

cm3/1000s. : + 4.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 215.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: 6.60
Tolerance mm: + 0.10
Del. quantity
cm3/1000 strokes: 19.0

Tolerance

cm3/1000 strokes : +- 3.0

6.0

Check tolerance cm3/1000s. : +-

Spreed

Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 10.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 19.10.93 Test oil : ISO 4113

Combination No. : 0 402 646 931X

Injection pump

Pump designation : PE6P120A320LS7837

: -10

EP type number : 0 412 626 855

Governor

Governer design. : RQV300...1050PA797

: -24

Sovermer no. : 0 421 813 911

Cust. part No. : 0200748302

Customer—spec. information Customer : MB-NFZ Motor : 0M441 LA Power KW : 250.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. *C : 40
Tolerance *C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5

Tolerance bar : \leftarrow 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360

Tolerance : + 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm : 15.05 Tolerance mm : +- 0.05

N₀4

1	- Tolerance
Del. quantity	- cm3/1000 strokes : +- 1.0
cm3/1000 strokes : 245.0	- Check tolerance
	- cm3/1000s. : + 4.0
Tolerance	- Spreed
cm3/1000 strokes : + 1.0	- Tolerance - cm3/1000 strokes : 5.0
Check tolerance	- Check tolerance
cm3/1000s. : +- 4.0	- cm3/1000s. : 9.0
	<u></u>
Spreed	-
Tolerance	- CONTROL LEVER
cm3/1000 strokes : 5.0	L CONTROL LEVER
4.05, 1.000 00. 01.00	- control lever
Check tolerance	- position degree : 122.0
cm3/1000s. : 9.0	tolerance degree : +- 4.0
	DATEN CREEN
1	- RATED SPEED - rack travel mm : 13.90
Rated speed rpm : 300	- Rated speed rpm : 1098
	- Tolerance 1/min : + 8
Rack travel in mm: 5.90	_
Tolerance mm : + 0.10	rack travel mm : 4.00
Del. quantity	Rated speed rpm : 1180
cm3/1000 strokes : 19.0 - Tolerance -	Tolerance 1/min : +- 15
cm3/1000 strokes : +- 3.0	rack travel mm : 0.50
Check tolerance	Tolerance mm : +- 0.50
cm3/1000s. : +- 6.0	Rated speed rpm : 1300
Spreed	
Tolerance	
cm3/1000 strokes : 6.0 - Check tolerance	
cm3/1000s. : 10.0	LOW IDLE
	-
· ·	
(B) SETTING OF INJECTION PUMP	control lever
WITH GOVERNOR	- position degree : 85.0 - tolerance degree : +- 4.0
3	toterance degree . +- 4.0
	Setting point w/out bumper spring
GUIDE SLEEVE POSITION	Rated speed rpm : 200
	- Nated Speed Ppin . Loo
control lever	- CRT mm min. :> 7.70
position degree : -1	
Rated speed rpm : 1100	Testing:
Rack travel in mm: 16.50	Rated speed rpm : 300
Tolerance mm : + 1.30	rack travel mm : 5.90
- TOCCI GIRW	rack travel mm : 5.90 Tolerance mm : + 0.10
	-
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 425
Detect enough many a 4000	
Rated speed rpm : 600 - Aneroid pressure	- TORQUE CONTROL
hPa : 1200	- Rated speed rpm : 600
Del. quantity	rack travel mm : 15.05
cm3/1000 strokes : 245.0	- Tolerance mm : + 0.05
•	

		+ Tolerance
Rated speed rpm	: 1050	- cm3/1000 strokes : +- 2.0
rack travel mm	: 14.90	+ Check tolerance
Tolerance mm	: ← 0.10	+ cm3/1000s. : + 5.0
		+ Spreed
		- + Tolerance
ANEROID/ALTITUDE		+ cm3/1000 strokes : 8.0
COMPENSATOR TEST		+ Check tolerance + cm3/1000s. : 12.0
		$\frac{1}{1}$ cm3/1000s. : 12.0
SETTING		
22.12.10		Aneroid pressure
Rated speed rpm	: 400	+ hPa : 550
Pressure hPa	: 1200	+ Rated speed rpm : 400
rack travel mm	: 15.05	+ Del. quantity
Tolerance mm	: ← 0.05	- cm3/1000 strokes : 204.5
Dawad anas-des-		Tolerance
- 7	: 400	+ cm3/1000 strokes : +- 1.5 + Check tolerance
Pressure hPa rack travel mm	9.05	+ cm3/1000s. : + 4.5
rack travet mm Tolerance mm	: + 0.15	T (110/ 1000)
Inceeding IMM	0.15	***************************************
MEASUREMENT		Aneroid pressure
		+ hPa : -
Pressure hPa	-	Rated speed rpm : 500
Rated speed rpm	: 500	Del. quantity
rack travel mm	: 9.05	+ cm3/1000 strokes : 133.0
Tolerance mm	: ← 0.15	+ Tolerance
Baland allenders	. /00	+ cm3/1000 strokes : ⊢ 1.0
Rated speed rpm	: 400	+ Check tolerance + cm3/1000s. :+ 4.0
Pressure hPa	: 550	+ cm3/1000s. : + 4.0 + Spreed
rressure nra rack travel nm	: 13.45	+ Tolerance
Tolerance mm	: ← 0.05	
TARRING INT	· • • • • • • • • • • • • • • • • • • •	Check tolerance
Pressure hPa	: 150	+ cm3/1000s. : 12.0
rack travel mm	: 9.70	+
Tolerance mm	: ← 0.10	+
		CTARTING FIFE OF THERY
Start interlock		T STARTING FUEL DELIVERY
Start HILEFLOCK		Rated speed rpm : 100
Rated speed rpm	: > 100	Del. quantity
Rated speed rpm		- cm3/1000 strokes : 230.0
and the same of the same		+ Tolerance
Check		+ cm3/1000 strokes : +- 10.0
speed 1/min	: > 80	Check tolerance
Check	. 0/0	+ cm3/1000s. : $+$ 14.0
speed 1/min	: < 240	†
		†
FUEL DELIVERY CHAP	PACTERISTICS	
I OLL DELIVERI CHAP	MOIFWIGHTO	LOW IDLE
		+
Aneroid pressure		Rated speed rpm : 300
hPa	: 1200	+
	. 4050	Rack travel in mm: 5.90
	: 1050	
Del. quantity		Tolerance mm : +- 0.10
Rated speed rpm Del. quantity cm3/1000 strokes		Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 19.0

Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		
cm3/1000s.	: +-	6.0
Spreed		
Tolerance		
cm3/1000 strokes	:	6.0
Check tolerance		
cm3/1000s.	:	10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04,11,93 Test oil : ISO 4113

Combination No. : 0 402 646 939X

Injection pump

Pump designation: PE6P12OA320LS7836

: -10

EP type number : 9 412 626 854

6overnor

Governer design. : RQV300...950PA797

: -31

Goyerner no. : 0 421 813 922

Cust. part No. : 0200742302

Customer-spec. information Customer : MB-NFZ Motor : 0M401 LA Power KW : 200.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. t/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar

Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : +- 1.0

Tolerance mm : 5.55

Check

: +- 0.10 tolerance mm

Rack travel in mm: 20.50 Tolerance mm : \leftarrow 0.50

: 6-3-5-2-4-Firing order

: 1

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance *NW : +- 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 950

Rack travel in mm: 13.20 Tolerance mm : \leftarrow 0.05

NO8

1	guide sleeve
Del. quantity	travel mm : 4.66
cm3/1000 strokes : 204.5	Tolerance ma : + 0.25
Tolerance	Rated speed rpm : 617
cm3/1000 strokes : + 1.0	guide sleeve
Labor 1000 Serones	travel mm : 5.23
Check tolerance	Tolerance man : +- 0.25
cm3/1000s. : + 4.0	TO COT CITIES THAN
1, 4.0	Rated speed rpm : 780
Spreed	guide sleeve
Spieed	travel mm : 6.31
Tolerance	Tolerance man : + 0.25
cm3/1000 strokes : 5.0	Toter and the name
CIBD/ 1000 Strokes . 3.0	Rated speed rpm : 1092
Charle to Laransa	guide sleeve
Check tolerance + cm3/1000s. : 9.0 +	
cm3/1000s. : 9.0	
	Tolerance mm : + 0.25
†	Dated aread page : 4400
700	Rated speed rpm : 1190
Rated speed rpm : 300	guide steeve
T	travel mm : 11.50
Rack travel in mm: 5.60	Tolerance mm : +- 0.50
Tolerance mm : + 0.10	
Del. quantity +	
cm3/1000 strokes : 19.0	GUIDE SLEEVE POSITION
Tolerance	
cm3/1000 strokes : + 3.0 +	
Check tolerance +	control lever
cm3/1000s. : $+6.0$	position degree : - 1
Spreed	Rated speed rpm : 1020
Tolerance +	
cm3/1000 strokes : 6.0	Rack travel in mm : 16.50
Check tolerance	Tolerance mm : + 1.30
cm3/1000s. : 10.0	
+	
1	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR +	Rated speed rpm : 950
1	Aneroid pressure
	hPa : 1400
GUIDE SLEEVE TRAVEL	Del. quantity
4	cm3/1000 strokes : 204.5
Rated speed rpm : 1009	Tolerance
guide sleeve	cm3/1000 strokes : +- 1.0
travel mm : 8.54	Check tolerance
Tolerance mm : + 0.20	cm3/1000s. : +- 4.0
1000141100 11111	Spreed
Rated speed rpm : 300	Tolerance
guide steeve	cm3/1000 strokes : 5.0
travel mm : 1.29	Check tolerance
Tolerance mm : + 0.15	cm3/1000s. : 9.0
	. /.0
Rated speed rpm : 1570	
guide sleeve + travel mm : 24.56 +	CONTROL LEVER
	CONTINUE LEAFIN
Tolerance mm : $\leftarrow 0.25$	control lever
Rated speed rom : 567	
Rated speed rpm : 567	position degree : 122.0 tolerance degree : +- 4.0
	1 () () () () () () () () () (
Т	toter ance degree 4.0

RATED SPEED rack travel mm : 12.20	- Pressure hPa : 1400 - rack travel mm : 13.20 - Tolerance mm : +- 0.05
Rated speed rpm : 995 Tolerance 1/min : + 5	- - Rated speed rpm : 400 - Pressure hPa : -
rack travel mm : 4.00 Rated speed rpm : 1090	- rack travel mm : 10.45 - Tolerance mm : +- 0.15
Tolerance 1/min : + 15	- MEASUREMENT
rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1200	Pressure hPa : - Rated speed rpm : 500 rack travel mm : 10.45 Tolerance mm : + 0.15
LOW IDLE	- Rated speed rpm : 400
control lever	- Pressure hPa : 350 - Tolerance mm : + 0.05
position degree : 86.0 tolerance degree : + 4.0	- Pressure hPa : 200 - Folerance mm : + 0.10
Setting point w/out bumper spring	- Start interlock
Rated speed rpm : 200	- Rated speed rpm :> 100
CRT mam min. : > 7.40 -	Rated speed rpm : < 240
Testing:	- Check - speed 1/min : > 80
Rated speed rpm : 300 - rack travel mm : 5.60 - rack travel mm : + 0.1	- Check - speed 1/min : < 260
Rated speed rpm : 375	FUEL DELIVERY CHARACTERISTICS
TORQUE CONTROL	Aneroid pressure
Rated speed rpm : 950	- hPa : 1400
rack travel mm : 13.20	Rated speed rpm : 800
Tolerance mm : + 0.05	- Del. quantity - cm3/1000 strokes : 204.0
Rated speed rpm : 800	- Tolerance
rack travel mm : 13.20	- cm3/1000 strokes : +- 2.0
Tolerance mm : + 0.05	- Check tolerance - cm3/1000s. : +- 5.0
Rated speed rpm : 600	- Spreed
rack travel mm : 13.20	- Tolerance
Tolerance mm : +- 0.05	cm3/1000 strokes : 8.0
•	Check tolerance
ANEROID/ALTITUDE - COMPENSATOR TEST	- cm3/1000s. : 12.0
	rack travel mm : 13.20 Tolerance mm : +- 0.05
SETTING	
-	

N10

Aneroid pressure 350 hPa Rated speed rpm 400 Del. quantity cm3/1000 strokes : 150.0 Tolerance cm3/1000 strokes 1.5 Check tolerance cm3/10000s.4.5 : +-Aneroid pressure hPa 500 Rated speed rpm Del. quantity 133.0 cm3/1000 strokes : Tolerance cm3/1900 strokes : +~ 1.0 Check tolerance 4.0 cm3/1000s.Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.12.0 STARTING FUEL DELIVERY 100 Rated speed rpm Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance : +- 14.0 cm3/1000s.LOW IDLE 300 Rated speed rpm 5.60 Rack travel in mm: Tolerance ma 0.10 Del. quantity 19.0 cm3/1000 strokes : Tolerance 3.0 cm3/1000 strokes : +-Check tolerance cm3/1000s.6.0 Spreed Tolerance 6.0 cm3/1000 strokes :

10.0

End of test specification sheet

Check tolerance

cm3/1000S.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.09.93 Edition Test oil : ISO 4113

Combination No. : 0 402 646 942X

Injection pump

Pump designation : PE6P12DA320LS7837 ...

: -10

EF type number : 0 412 626 855

6overnor

Governer design. : RQ300/1050PA993 Governer no. : 0 421 801 581

Cust. part No. : 0200747102

Customer-spec. information Customer : MB-NFZ Motor : 0M441 LA Power KW : 250.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

bar 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke ma 5.25 Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 20.50 : + 0.50 Tolerance mm

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360

: ← 0.30 Tolerance

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Del. quantity

cm3/1000 strokes : 245.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : + 4.0	Check tolerance cm3/1000s. : 9.0
Tolerance cm3/1000 strokes : 5.0	CONTROL LEVER
Check tolerance cm3/1000s. : 9.0	position degree : 99.0 tolerance degree : +- 4.0
Rated speed rpm : 300	RATED SPEED rack travel mm : 13.90 Rated speed rpm : 1098 Tolerance 1/min : +- 8
Rack travel in mm: 5.90 Tolerance mm: : + 0.10 Del. quantity cm3/1000 strokes: 19.0 Tolerance	rack travel mm : 4.00 Rated speed rpm : 1185 Tolerance 1/min : + 15
<pre>cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0</pre>	rack travel mm : 0.75 Tolerance mm : + 0.75 Rated speed rpm : 1300
Check tolerance cm3/1000S. : 10.0	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 74.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Setting poin: w/out bumper spring Rated speed rpm : 200
control lever position degree : 109 Rated speed rpm : 600	CRT mm min. : > 8.10 Testing:
Rack travel in mm: 20.00 Tolerance mm: + 0.80	Rated speed rpm : 300 rack travel mm : 5.90 Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00 Rated speed rpm : 400
Rated speed rpm : 600 + Aneroid pressure + 1200 + 1	Tolerance 1/min : +- 20
Del. quantity cm3/1000 strokes : 245.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0	TORQUE CONTROL Rated speed rpm : 1050 rack travel mm : 14.90 Tolerance mm : + 0.10
Circy Tudu Strokes : 5.0 †	

		1
		Aneroid pressure
ANEROID/ALTITUDE		+ hPa : 550
COMPENSATOR TEST		+ Rated speed rpm : 400
		+ Del. quantity
		+ cm3/1000 strokes : 204.5
SETTING		+ Tolerance
		+ cm3/1000 strokes : $+$ 1.5
Rated speed rpm	: 600	- Check tolerance
Pressure hPa	: 1200	+ cm3/1000s. : + 4.5
rack travel mm	: 15.05	1
Tolerance mm	: +- 0.05	
		- Aneroid pressure
Rated speed rpm	: 500	hPa : -
ressure hPa	: -	+ Rated speed rpm : 500
rack travel mm	: 9.05	Del. quantity
Tolerance mm	: +- 0.15	+ cm3/1000 strokes : 133.0
TOCCI GIOC SIM	0.13	Tolerance
MEASUREMENT		= cm3/1000 strokes : +- 1.0
ILTOOKE IEITT		Check tolerance
Rated speed rpm	: 600	- cm3/1000s. : + 4.0
rated sheed this		Spreed
Pressure hPa	: 150	Tolerance
ressure nra rack travel mm	: 9.70	+ cm3/1000 strokes : 8.0
rack travet mm Tolerance mm	: ← 0.10	Check tolerance
oterance nm	: +- 0.10	
		cm3/1000s. : 12.0
ressure hPa	: 550	†
ack travel mm	: 13.45	†
olerance mm	: ← 0.05	OTANTANO PUEL DEL TUENV
		STARTING FUEL DELIVERY
Start interlock		Rated speed rpm : 100
tal b Hijoci took		- Del. quantity
ated speed rpm	: > 100	- cm3/1000 strokes : 230.0
ated speed rpm		+ Tolerance
dren specu i ha		cm3/1000 strokes : + 10.0
book		Check tolerance
heck peed 1/min	: > 80	+ cm3/1000s. : + 14.0
	. / 00	T (1137 10003. : +- 14.0
heck	2/0	1
peed 1/lain	: < 240	Ī
		101.70.5
FUEL DELIVERY CHA	IKACIERT211C2	+ LOW IDLE
		- Rated speed rpm : 300
Aneroid pressure	4000	† 5.14
nPa .	: 1200	Rack travel in mm: 5.90
Rated speed rpm	: 1050	Toterance mm : + 0.10
el. quantity		+ Del. quantity
m3/1000 strokes	: 236.0	+ cm3/1000 strokes : 19.0
olerance		+ Tolerance
m3/1000 strokes	: ← 2.0	+ cm3/1000 strokes : $+$ 3.0
Check tolerance		+ Check tolerance
m3/1000s.	: ← 5.0	+ cm3/1000s. : +- 6.0
Spreed		Spreed
Tolerance		+ Tolerance
m3/1000 strokes	: 8.0	+ cm3/1000 strokes : 6.0
heck tolerance		+ Check tolerance
m3/1000s.	: 12.0	+ cm3/1000s. : 10.0
		1

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 07.09.93 Test oil : ISO 4113

Combination No. : 0 402 646 950X

Injection pump

Pump designation: PE6P120A320LS7837

: -10

EP type number : 0 412 626 855

Governor

Governer design. : RQ300/950PA993-2 Governer no. : 0 421 801 590

Cust. part No. : 0210747902

Customer—spec. information Customer : MB-NFZ Motor : 0M441 LA Power KW : 250.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05
Check

CHECK

tolerance mm : \leftarrow 0.10

Rack travel in mmm : 20.50 Tolerance mmm : + 0.50

Firing order : 6-3-5-2-4-

. 1-

Phasing : 0-60-120-180-240

: -300-360

Tolerance : \leftarrow 0.30

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Del. quantity

cm3/1000 strokes : 245.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 4.0	Check tolerance cm3/1000s. : 9.0
spreed	
Tolerance cm3/1000 strokes : 5.0	CONTROL LEVER
Check tolerance cm3/1000s. 9.0	position degree : 102.0 tolerance degree : + 4.0
Rated speed rpm : 300	RATED SPEED rack travel mm : 14.05 Rated speed rpm : 998 Tolerance 1/min : +- 8
Rack travel in mm: 5.90	
Tolerance mm : + 0.10 + Del. quantity cm3/1000 strokes : 19.0 +	rack travel mm : 4.00 Rated speed rpm : 1080 Tolerance 1/min : 15
Tolerance	Total artist
cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 6.0 Sprend Tolerance	rack travel mm : 0.75 Tolerance mm : + 0.75 Rated speed rpm : 1200
cm3/1000 strokes : 6.0	
Check tolerance	
	LOW TRUE
cm3/1000s. : 10.0 +	LOW IDLE
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 74.0 tolerance degree : + 4.0 Setting point w/out bumper spring
CHANE OF EDITE DOCUTION	second bottle woods banker spring
GUIDE SLEEVE POSITION	Rated speed rpm : 200
control Lever position degree : 109	CRT mm min. :> 8.30
Rated speed rpm : 600	Testing:
Rack travel in mm: 20.00 + Tolerance mm: + 0.80	Rated speed rpm : 300 rack travel wm : 5.90 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00 Rated speed rpm : 400
Rated speed rpm : 600 Aneroid pressure	Tolerance 1/min : +- 20
hPa : 1200	TODOLIE CONTROL
Del. quantity	TORQUE CONTROL
cm3/1000 strokes : 245.0	
Tolerance	Rated speed rpm : 950 rack travel mm : 15.05 Tolerance mm : + 0.05
cm3/1000 strokes : + 1.0 +	rack travel mm : 15.05
Check tolerance +	Tolerance mm : $+$ 0.05
cm3/1000s. : +- 4.0	
Spreed	
Tolerance	
cm3/1000 strokes : 5.0 +	

ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 600 : 1200 : 15.05 : + 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - 9.05 : + 0.15
MEASUREMENT	
Rated speed rpm	: 600
Pressure hPa rack travel mm Tolerance mm	: 150 : 9.70 : + 0.10
Pressure hPa rack travel mma Tolerance mmm	: 550 : 13.45 : + 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 220
Check speed 1/min	: > 100 : < 220 : > 80
Check	
Check speed 1/min Check	: > 80 : < 240
Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm	: > 80 : < 240
Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Tolerance cm3/1000 strokes	: > 80 : < 240 RACTERISTICS : 1200 : 950
Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: > 80 : < 240 RACTERISTICS : 1200 : 950
Check speed 1/min Check speed 1/min FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: > 80 : < 240 RACTERISTICS : 1200 : 950 : + 2.0

Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 133.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 250.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 Rack travel in mm : 5.90 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance	Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 550 : 400 : 204.5 : + 1.5 : + 4.5
Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 133.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 250.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 5.90 Tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 5.90 Tolerance rmm : + 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0		
Tolerance cm3/1000 strokes : 133.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 250.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 Rack travel in mm : 5.90 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : - 6.0 Spreed Tolerance cm3/1000 strokes : 6.0	Rated speed rpm	
Cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 250.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 Rack travel in mm : 5.90 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0	cm3/1000 strokes	: 133.0
Cm3/1000S. : + 4.0 Spreed Tolerance Cm3/1000 strokes : 8.0 Check tolerance Cm3/1000S. : 12.0 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity Cm3/1000 strokes : 250.0 Tolerance Cm3/1000 strokes : + 10.0 Check tolerance Cm3/1000S. : + 14.0 LOW IDLE Rated speed rpm : 300 Rack travel in mm : 5.90 Tolerance mm : + 0.10 Del. quantity Cm3/1000 strokes : 19.0 Tolerance Cm3/1000 strokes : + 3.0 Check tolerance Cm3/1000 strokes : + 3.0 Check tolerance Cm3/1000S. : + 6.0 Spreed Tolerance Cm3/1000 strokes : 6.0	cm3/1000 strokes	: +- 1.0
Cm3/1000 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 STARTING FUEL DELIVERY Rated speed rpm: 100 Del. quantity cm3/1000 strokes: 250.0 Tolerance cm3/1000 strokes: + 10.0 Check tolerance cm3/1000s.: + 14.0 LOW IDLE Rated speed rpm: 300 Rack travel in mm: 5.90 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 19.0 Tolerance cm3/1000 strokes: + 3.0 Check tolerance cm3/1000 strokes: + 6.0 Spreed Tolerance cm3/1000 strokes: 6.0	cm3/1000s. Spreed	: + 4.0
Cm3/1000S. : 12.0 STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 250.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000S. : + 14.0 LOW IDLE Rated speed rpm : 300 Rack travel in mm : 5.90 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000S. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0	cm3/1000 strokes	: 8.0
Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 250.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 Rack travel in mm : 5.90 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0		: 12.0
Rated speed rpm : 300 Rack travel in mm : 5.90 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0	Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 100 : 250.0 : + 10.0
Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0		: 300
Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0	Rated speed rpm	
Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0	Rack travel in mm	: 5.90
Check tolerance cm3/1000s. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 6.0	Rack travel in man Tolerance man Del. quantity	: 5.90 : + 0.10
Tolerance cm3/1000 strokes : 6.0	Rack travel in man Tolerance man Del. quantity cm3/1000 strokes Tolerance	: 5.90 : + 0.10 : 19.0
	Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 5.90 : + 0.10 : 19.0 : + 3.0
cm3/1000s. : 10.0	Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: + 5.90 : + 0.10 : 19.0 : + 3.0 : + 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.11.93 Test oil : ISO 4113

Combination No. : 0 402 646 952X

Injection pump

Pump designation: PE6P120A320LS7836

: -10

EP type number : 0 412 626 854

Governor

Governer design. : RQ300/1050PA972-8 Governer no. : 0 421 801 626

Cust. part No. : 0200740902

Customer—spec. information Customer : MB-NFZ Motor : 00401 LA Power KW : 180.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110
Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

N20

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0
Tolerance bar : + 1.0

Prestroke mm : 5.55 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.30

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 12.70

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 183.5	Tolerance mm : + 0.10
Tolerance	+ Rated speed rpm : 396 + guide sleeve
cm3/1000 strokes : +- 1.0	travel mm : 3.90 Tolerance mm : + 0.10
Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 510
Spreed	+ guide sleeve + travel mm : 6.00
	+ Tolerance mm : + 0.10
Tolerance cm3/?000 strokes : 5.0	Rated speed rpm : 1270
	guide sleeve
Check tolerance cm3/1000s. : 9.0	travel man : 11.50 Tolerance man : + 0.50
	T Dated aread area a 977
	Rated speed rpm : 877
700	+ guide steeve
Rated speed rpm : 300	+ travel mm : 6.26
	+ Tolerance mm : + 0.10
Rack travel in mm: 5.60	+
Tolerance mm : + 0.10	+
Del. quantity	+ GUIDE SLEEVE POSITION
cm3/1000 strokes : 19.0	+
Tolerance	1
cm3/1000 strokes : + 3.0	+ control lever
Check tolerance	position degree : 109
	Rated speed rpm : 600
- ··· - · - ·	T rated speed (pin . 000
Spreed	T mark through in mr : 20.00
Tolerance	+ Rack travel in mm : 20.00
cm3/1000 strokes : 6.0	† Tolerance mm : + 0.80
Check tolerance	†
cm3/1000s. : 10.0	
	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF INJECTION PUMP	+ Rated speed rpm : 1050
WITH GOVERNOR	+ Aneroid pressure
Walter Will Will Williams	+ hPa : 1400
	Del. quantity
GUIDE SLEEVE TRAVEL	+ cm3/1000 strokes : 183.5
DATAE DEFELE HOLEE	+ Tolerance
Rated speed rpm : 1108	+ cm3/1000 strokes : + 1.0
guide sleeve	Check tolerance
travel mm : 6.71	- cm3/1000s. : + 4.0
Tolerance ma : +- 0.10	Spreed
FOLET CHILD . TO U. IU	Tolerance
Rated speed rom : 300	+ cm3/1000 strokes : 5.0
Trace and the second se	Check tolerance
guide sleeve	
travel mm : 1.70	cm3/1000s. : 9.0
Tolerance mm : + 0.10	†
4050	†
Rated speed rpm : 1050	ACCURACY A STATE
guide sleeve	+ CONTROL LEVER
travel mm : 6.35	+
Tolerance mm : + 0.10	+ control lever
	position degree : 96.0
Rated speed rpm : 793	+ tolerance degree : +- 4.0
guide steeve	4
trayel mm : 6.09	+ RATED SPEED
C:0/CC (## . 0.0)	I WHITE OF CED

rack travel man Rated speed rpm Tolerance 1/min rack travel man Rated speed rpm Tolerance 1/min rack travel man Tolerance man Rated speed rpm	
LOW IDLE	
control lever position degree tolerance degree	: 74.0 : ← 4.0
Setting point w/c	out bumper spring
Rated speed rpm	: 200
CRT mma min.	: > 7.40
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 5.60 : ← 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 390 : + 20
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1050 : 12.70 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 12.70 : ← 0.05
Rated speed rom rack travel mon Tolerance mon	: 600 : 12.70 : + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	

Pressure hPa	: 1400
rack travel mm	: 12.70
Tolerance mm	: - 0.05
Rated speed rpm	: 500
Pressure hPa rack travel mm	10.75
Tolerance mm	: +- 0.15
MEASUREMENT	
Rated speed rpm	: 400
Pressure hPa	: 200
Tolerance mm	: ← 0.05
Pressure hPa	: -
rack travel mm Tolerance mm	: 10.75 : + 0.15
10 ter direc man	
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa	: 1400
Rated speed rpm	: 800
Del. quantity	400.0
cm3/1000 strokes Tolerance	: 188.0
cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s.	: +- 5.0
Spreed	
Tolerance	: 8.0
cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0
rack travel mm	: 12.70
Tolerance mm	· + 0.05
Aneroid pressure	
hPa Rated speed rpm	: 200 : 400
Del. quantity	
cm3/1000 strokes Tolerance	: 119.0
cm3/1000 strokes	: +- 1.5
Check tolerance	/ 5
cm3/1000s.	: +- 4.5

Aneroid pressure hPa

hPa : -Rated speed rpm : 500

N22

Rated speed rpm : 400

Del. quantity	
cm3/1000 strokes	: 133.0
Tolerance	
cm3/1000 strokes	: ← 1.0
Check tolerance	
cm3/1000s.	: ← 4.0
Spreed	
Tolerance	
cm3/1000 strokes	: 8.0
Check tolerance	
cm3/1000s.	: 12.0

STARTING FUEL DELIVERY

Rated speed rpm	:	100
rack travel mm	:	10.50
Tolerance mm	: 4	-0.20
Del. quantity		
cm3/1000 strokes	:	65.0
Tolerance		
cm3/1000 strokes	: 4	- 15.0
Check tolerance		
CM3/1/000S	. 4	- 10 n

LOW IDLE

Rated speed rpm	:	300	
Rack travel in mm Tolerance mm Del. quantity	: +-	5.60 0.10	
cm3/1000 strokes	:	19.0	
Tolerance cm3/1000 strokes	: +-	3.0	
Check tolerance cm3/10 0 0s.	: +-	5.0	
Spreed Tolerance			
cm3/1000 strokes Check tolerance	:	6.0	
cm3/1000s.	:	10.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.11.93 Test oil : ISO 4113

Combination No. : 0 402 646 953X

Injection pump

Pump designation : PE6P120A320LS7836

: -10

EP type number : 0 412 626 854

Governor

Governer design. : RQ300/950PA971-8 Governer no. : 0 421 801 625

Cust. part No. : 0200742002

Customer—spec. information Customer : MB-NFZ Motor : OM401 LA Power KW : 180.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

1

Phasing : 0-60-120-180-240

: -300

Tolerance

: **←** 0.30

Check

tolerance °NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 950

2 70

Rack travel in mm : 12.70 Tolerance mm : + 0.05

Del. quantity +	Tolerance
cm3/1000 strokes : 188.5	cm3/1000 strokes : + 1.0
}	Check tolerance
Tolerance	cm3/1000s. : + 4.0
cm3/1000 strokes : +- 1.0 +	Spreed
1.00	Tolerance
Check tolerance	cm3/1000 strokes : 5.0
cm3/1600s. : + 4.0	Check tolerance
CIID/ (0003, - + - 4.0	cm3/1800s. : 9.0
Spreed	CMD/ 10003 9.0
Spreed	
Tolerance	
cm3/1000 strokes : 5.0	CONTROL LEVER
tim too strokes . J.u	CONTROL LEVER
Check tolerance	control lever
cm3/1000s. : 9.0	position degree : 96.0
CR57 (UOUS. : 9.0	
	tolerance degree : +- 4.0
†	RATED SPEED
Cataol agood warm a 700	
Rated speed rpm : 300	
Deal travel in an	Rated speed rpm : 998
Rack travel in mm: 5.60	Tolerance 1/min : + 8
Tolerance mm : + 0.10	
Del. quantity +	rack travel mm : 4.00
cm3/1000 strokes : 19.0	Rated speed rom : 1080
Tolerance	Tolerance 1/min : + 15
cm3/1000 strokes : + 3.0	
Check tolerance	rack travel mm : 0.75
cm3/1000s. : $+$ 6.0	Tolerance mm : + 0.75
Spreed	Rated speed rpm : 1100
Tolerance +	
cm3/1000 strokes : 6.0 +	
Check tolerance +	
cm3/1000s. : 10.0	
+	LOW IDLE
†	
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR +	control lever
+	position degree : 74.0
+	tolerance degree : +- 4.0
	•
GUIDE SLEEVE POSITION +	Setting point w/out bumper spring
+	•
+	Rated speed rpm : 200
control lever	•
position degree : 109	CRT mm min. : > 7.40
Rated speed rpm : 600 +	
+	Testing:
Rack travel in mm: 20.00	Testing:
+	Rated speed rpm : 300
Rack travel in mm : 20.00	Rated speed rpm : 300 rack travel mm : 5.60
Rack travel in mm : 20.00	Rated speed rpm : 300
Rack travel in mm: 20.00	Rated speed rpm : 300 rack travel mm : 5.60
Rack travel in mm : 20.00 Tolerance mm : + 0.80	Rated speed rpm : 300 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00
Rack travel in mm: 20.00 Tolerance mm: + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 300 rack travel mm : 5.60 Tolerance mm : + 0.10
Rack travel in mm: 20.00 Tolerance mm: + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 300 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00
Rack travel in mm: 20.00 Tolerance mm: + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 300 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 390
Rack travel in mm: 20.00 Tolerance mm: + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 950 Aneroid pressure hPa: 1400	Rated speed rpm : 300 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 390
Rack travel in mm: 20.00 Tolerance mm: + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 950 Aneroid pressure hPa: 1400 Del. quantity	Rated speed rpm : 300 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 390
Rack travel in mm: 20.00 Tolerance mm: + 0.80 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm: 950 Aneroid pressure hPa: 1400	Rated speed rpm : 300 rack travel mm : 5.60 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 390 Tolerance 1/min : + 20

rack travel man Tolerance man	: 12.70 : + 0.05
Rated speed rpm rack travel mma Tolerance mma	: 800 : 12.70 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 600 : 12.70 : + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 400 : 1400 : 12.70 : +- 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 10.75 : + 0.15
MEASUREMENT	
Rated speed rpm	: 400
Pressure hPa Tolerance mm	: 200 : + 0.05
Pressure hPa rack travel mm Tolerance mm	: - : 10.75 : + 0.15
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1400 : 800
cm3/1000 strokes Tolerance	: 188.0
cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: + 2.0 : + 5.0
Tolerance cm3/1000 strokes	: 8.0
Check tolerance cm3/1000S.	: 12.0

Tolerance mm	: 12.70 : + 0.05
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 200 : 400 : 119.0 : + 1.5 : + 4.5
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 500 : 133.0 : + 1.0 : + 4.0 : 8.0 : 12.0
STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm	IVERY : 100 : 10.45 : + 0.15
LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 300 : 5.60 : + 0.10 : 19.0 : + 3.0 : + 6.0 : 6.0 : 10.0